

FIG. 1

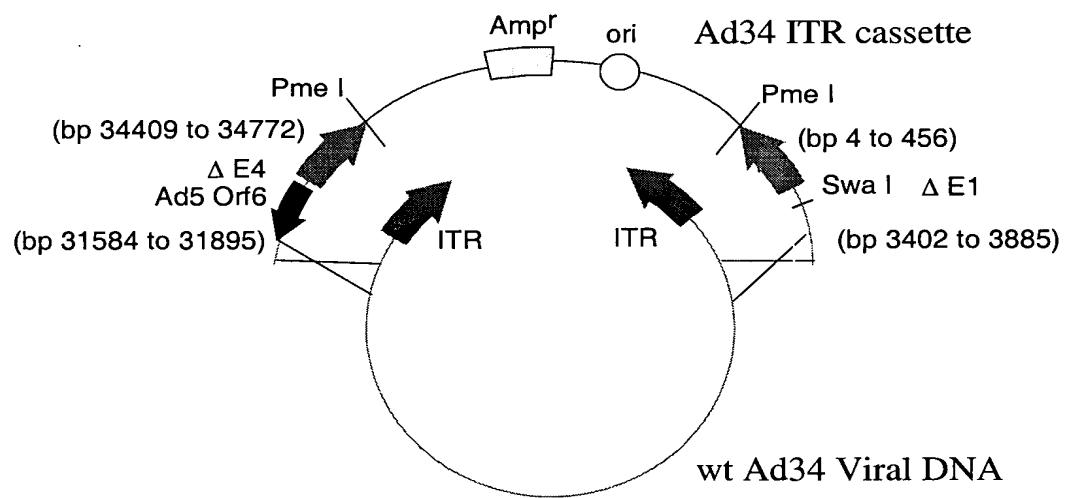


FIG. 2

1 catcatcaat aatacacctt atagatggaa tggtgccaat atgtaaatga ggtgattta
 61 aaaattgtgg ggtgtgttgt gattggctgt ggggtaacg gctaaacggc gcggcgccgc
 121 cgtggaaaaa tgacgtttt ggggggtgga gtttttgc aagtgtcg gggaaatgtg
 181 acgcataaaa aggcttttt tctcacggaa ctactgactt ttcccacggt atttaacagg
 241 aaatgaggta gttttgacgg gatgcaagtg aaaattgtcg atttgcgc gaaaactgaa
 301 tgaggaagtg ttttctgaa taatgtggta ttatggcag ggtggagttat ttgttcaggg
 361 ccaggtagac tttgaccat tacgtggagg ttgcattac cgtgtttttt acctgaattt
 421 ccgcgtaccg tgcgtcaaagtc ttctgtttt acgttaggtgt cagctgatcg ctacgttatt
 481 tataacctcg ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agtttctcc
 541 tctgcgcgg cagttataata ataaaaaaat gagagatttgc gatgtttctgc ctcaggaaat
 601 aatttctgtc gagactggaa atgaaataact ggagcttgcgt gtgcacgccc tgatggaga
 661 cgatccggag ccacctgtgc agcttttga gcctccatcg cttcaggaaac tttatgattt
 721 agaggttagag ggtatcgagg attctaataat ggaagctgtg aatggctttt ttaccgattt
 781 tatgtttta gctgtcaatg aaggatttaga attagatcg ctttggaca ctttcgatac
 841 tccagggtt gatgtggaaa gcggtacagg tgaagaaaaa ttacctgatt tgggttccgt
 901 ggactgtgat ttgcactgtc atgaaagacgg gtttcctccg agtgcgtgagg aggaccatga
 961 aaaggagcag tctatgcaga ctgcagcggg tgaggagtg aaggctgcca gtgttggttt
 1021 tcagttggat tgcccgagg ttcctggaca tggctgttaag tcttgtgaat ttcacaggaa
 1081 aaatactgga gtaaaggaac ttttatgttc gcttggat atgagagcgc actgcactt
 1141 tatttacagt aagtgtgtt aagttaaaat ttaaaggaaat atgctgtttt tcacatgtat
 1201 attgagtgaaa agtttgcgtc ttcttattat aggtccatcg tctgtatcg atgagtcacc
 1261 atctccgtat tctactacct cacccctgtca gattcaagca ccttgcctg tggacgtcg
 1321 caagcccat cctgtgaagc ttaagcctgg gaaacgtcca gcgtggaaa aacttgagga
 1381 ctgttacag gttggggacg gaccccttggaa cttgagatca cgaaacggc caagacaata
 1441 agtgcgttcat atccgtgtt acttaaggatc acgtcaatat ttgtgtgaga gtgcataatgt
 1501 ataaaaatat gtttaactgtt cactgggtt tattgctttt tggccgggg ctcaggtata
 1561 taagtagaag cagacctgtt tggttagctc ataggagctg gcttcatcc atggaggttt
 1621 gggccattttt ggaagacctt agaaagacta ggcaactgtt agaggacgc tcggacggag
 1681 tctccgggtt ttggagattc tggttcgtca gtgaattagc tagggtagtt tttaggataa
 1741 aacaggacta taaagaagaa ttgaaaatgt tgggtttaga ttggcccaggaa ctttttgaag
 1801 ctcttaattt gggccatcaa gttcaacttta aagaaaaatgt ttatcgtt ttagactttt
 1861 caacccccagg tagaactgtcc gctgtgtgg ctttcttac ttttatatta gataaatggaa
 1921 tcccgagac tcatttcgcg aggggatcatc ttttgattt ctagccaca gcattgtggaa
 1981 gaacatggaa gtttcgcaag atgaggacaa tcttaggttta ctggccagtg cagcccttgg
 2041 gtgtacggg aatccgttgg catccacccg tcatgcacgc gttctggag gagaaacagc
 2101 aagaggacaa cccgagagcc ggcctggacc ctccagtgaa ggaggcggag tagctgactt
 2161 gtctccgtaa ctgcaacggg tgcttactgg atctacgtcc actggacggg atagggcgt
 2221 taagaggggag agggcatcta gtgtactga tgcttagatct gatgtggcgtt taagttat
 2281 gagtcgcaga cgtccctgaaa ccattttggc gcatgggtc cagaaagagg gaaggatggc
 2341 agtttctgtt ttgcaggaga aatattactt ggaacaggtg aaaaacatgtt gttggagcc
 2401 tgaggatgt tgggggtt ccattaaaaaa ttatgcctaaatgatctt ggcctgataa
 2461 acatataag attactagac ggatataat ccggaaatgtc ttgtacatata ctggaaatgg
 2521 ggctgaggtg gtaatagata ctcacagacaa ggcagtattt agatgtcgtca tgatggat
 2581 gtggcctgga gtatgcgtt tggaaagcagt aactttttaa aatgttaatg ttaggggaga
 2641 tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcattt gttgtagctt
 2701 ttttggtttcc aacaataacct gtgttagatgc ctggggacag gttatgttac ggggatgttag
 2761 tttctatgcg ttttggattt ccacagctgg cagaaccaag agtcaatttgc ctctgaagaa
 2821 atgcataattt caaagatgtt acctgggcat tctgtatgaa ggtttccat caacgcaaaaa aatggccgt
 2881 ctgcgttcc acatataactt gatgtttttt ttttataatgg ggcgaagccaa ggttccgcca
 2941 taacatgtt tgcgggttcc ccatgtgagat ttttccat caacgcaaaaa aatggccgt
 3001 gcattgttaat atgtggctt ctgtgcataat ggcattatcaa atgctcattt gtgtccgt
 3061 ttttggatcac aatgtgttgc ccaagtgtac catgcatttca ggtggggcgtt gaggaatgtt
 3121 tatgccttac cagtgttaca tgaatcatgt gaaagtgtt tggaaaccag atgcctttt
 3181 cagaatgagc ctaacagggaa tcttgcacat gaacatgcaaa atcttggaaatc tcctgaggta
 3241 tgatgatacg agatcgaggg tgcgcgcgtt cgaatgcggaa ggcgaagcatg ccagggttcca
 3301 gcccgtgtt gtatgttgc ctgtgcataat gagaccggat cattttggta ttgcccgcac
 3361 tggagcagag ttccgtatcc gttggagaaga aactgtactt ggtggatgg tggaaaactt
 3421 ggggtgggtt ttccatgttgg acatgttgg taaaatttg ttatgttctgtt ctttcagctg
 3481 tcatgtgttgg aaacgttttctt ttttgggggg ggtcttcgtt cccttattctg acagggcg
 3541 tcccatccgtt ggcaggatgt cgtcagaatgt ttatggatc tactgtggat ggaagacccg
 3601 tccaaaccgcg caatttctca acgtgcaccc atgctacttt aagtttctca ctttggacg
 3661 cagctgcagc cgccgcgcgc gcctctgtt ccgtcaacac tttgtcttggaa atgggtact
 3721 atggaagtat cgtggctaat tccacttccct ctaataaccc ttctaccctg actcaggaca
 3781 agttacttgtt cttttggcc cagctggagg ctttgaccca acgtctgggtt gaaactttatc
 3841 agcaggtggc cgagttgcga gtacaaactg agtctgtgtt cggcacggca aagtcttaat

FIG. 3A-1

3901 aaaaaaaaaat tccacaatca atgaataaaat aaacgagctt gttgttatt taaaatcaag
3961 tgaaaaatttcatt tcattttcg cgcacggat gccctagacc accgatctcg
4021 acacgggtgaa tttttccag aatcctatag aggtgggatt gaatgttag
4081 attaggccat ctttgggtgt gagatagctc cattgaaggg attcatgctc
4141 ttgttaaatca cccagtcata acaaggctgc agtgcattgt gttgcacaat
4201 agtaggctga ttgcacaga taagcccttg gtgttaggtgt ttacaaaaccg
4261 gagggggtgca ttccccgtga aattatgtc atttggatt ggattttaa
4321 ttccccccaa gatctgtct tgggttcatg ttatgaagg ccaccaagac
4381 gtacatttg gaaattttc gtgtagctt gatggaaaaa cgtggaaaaa
4441 cccttgtgtc ctccgagatt ttccatgcac tcatccatga taatagcaat
4501 gcagcagcgc gggccaaacac gttccgtggg tctgacacat catagttatg
4561 aaatcatcat aagccatttt aatgaatttg gggcggagag taccggattt
4621 gttccttcgg gccccggagc atagttccc tcacagattt gcatttcca
4681 tccgatgggt gaatcatgtc cacctgggg gctatgaaga acaccgttc
4741 gtgatttagtt gggatgatag caagttctg agcaatttgag atttgccaca
4801 ccataaatga ttccgattac aggttgcagg ttgttagttt gggaaacggca
4861 ttcgaagca agggggccac ctcgttcatc atttccctta catgtatatt
4921 aaatccatca ggaggcgctc ttcccttagt gatagaagtt ttgttagtga
4981 ttcagcggtt ttagaccgtc agccatgggc attttggaga gagttgtcg
5041 agtctgttcc acagttcagt gatgtttct atggcatctc gatccagcag
5101 ttccgggtt tggacggctc ctggagtagg gtatgagacg atggcggtcc
5161 gggttcggc cttccagggt ctcagtgtt gactcagggt ttccctgtc
5221 ggtgtgcgcc tgcttggcg cttgtccaggg tgccaggg tgccgtttag actcattctg
5281 acttctgtcg cttggcgccc cttgtccaggg ccaagtagca gtttaccatg
5341 tgagccctc ggctgcgtgg cttgtccaggg ggagcttacc tttggaaagtt
5401 cccggcagta tagcatttc agcgcataca gcttggcgca aaggaaaaatg
5461 agtatgcata tgccggcagc gaggcggaaa cagtttccaca ttccaccagg
5521 cccggttcatt ggggtcaaaa cttgtccaggg cttgtccaggg ttccatgtc
5581 tggctccat gagttcgtgt cttgtccaggg tgacaaaacag gctgtccgt
5641 ctgattttac aggctcttc tccagtggtt tgccctgggt ttcttctgt
5701 accactctga tacaaaaggcg ctcgtccagg ccagcacaag ggaggctatg
5761 agcgatcgtt gtcaaccagg gggtccaccc ttccaaagtt atgcaaacac
5821 cttcaacatc caggaatgtg attggcttgcg aggtgtattt cactgtgcct
5881 ctgggggggt ataaaaagggg gcggttctt gcttcttcc actgttcttcc
5941 ccaggaacgt cagctgttgg ggttagttt ccctctcgaa ggcgggcatt
6001 tcagggttgc agttctaaag aacaggagg atttgcattt gacagtgcgg
6061 ctttcatgag gtttctgtcc atttggctcggg aaaacacaat tttttattt
6121 tggcaaatga tccatacagg gcgttggata aaagtttggc aatggatcgc
6181 tctttccctt gtccgcgcgc tcttggcag cgatgttgcg ttggacatac
6241 ggcacttcca ttccccggaa atagttgtca attcatctgg cacgattctc
6301 ctcgattatg caaggttaatt aatccacac tggtgccac ctcgcctcga
6361 tggtccaaaca gagccctaccc ctttccctag aacagaaaagg gggaaagtgg
6421 gttcatcggtt agggctgtca tccatgttaa agattccccgg aagtaaatcc
6481 agctgtatgg agtgggggtca tctaaggcca ttggccattc tcgagctgg
6541 catatgggtt aaggggactg ccccaaggca tggatgggtt gatgtcgg
6601 cacagatgtc atagacgttag atgggatcct cttttttttt cttttttttt
6661 gccccctct gatacttgct cgcacatagt catatagttc atgtatggc
6721 cccggccaaat gttgggtgcga ttgggtttt ctgttctgtt gacaatctgg
6781 cgtgagaatt ggaagagatg gtgggtcttt gaaaaatgtt gaaatggca
6841 ctacagagtc tctgacaaag tgggcataag attcttgcg atcttgcg
6901 tgacaagttac gtcttagggcg cagtagtcaa gtgtttctt aatgtatgtca
6961 ggtttttctt ttccccacgt tccgttgcgaa aggttattt ttcgcgtatcc
7021 cttctagcggtt aaaccctgtc ttgttgcac gtaagatcc tagcatgttag
7081 ctgccttgcg agggcagcag cccctctcta cgggttgcgaa gatgttgc
7141 gcagcgaagc gtgagtaagg gcaagggtgt ctctgaccat gacttgcg
7201 tgaagttcat gtcgtcacag gctccctgtt cccaggttg gaagtctacc
7261 aggccccgggtt gggccaaagcg aaagtaacat cgttgcgaa gatcttacc
7321 taaaatttgcg agtgcgtcg aaaggctgtg gtacttccgc tcgatttt
7381 cagcttaggac gatctcgatc aaaccgttgc tgggtgttcc tacgtatgtat
7441 aacgcggcgt gccttgcac tgaggtatc tatttgcgtc atcaaaagg
7501 gtcagataa ggcgttagtgc tccgttgcac gtaagatcc tagcatgttag
7561 atgatgacca aagatccacc gccagtgctg ttgttactt gtcggatcc
7621 gtcggccaaat tgccattttt tctgggttgcgaa cactgttgcgaa gtttctgg
7681 atcgatccca cttagtttgcg atggcttagat cgtggggccat gttgacgaga
7741 ctgagagttt catgaccaggc atgaaaggaa cttagttgtt gccaaaggac

FIG. 3A-2

7801 tgtaagttc cacatcgtag gtcaggaaga gtctttctgt gcgaggatga gagccgatcg
 7861 ggaagaactg gatttcctgc caccagtgg aggattggct gttgatgtga tggaaagtga
 7921 agtttctgcg ggcgcggcgg cattcggtt tgcgtaatga gctgtacctg gcttcccttg acgagaaatt
 7981 agcgttgcac gggttgtatc tcgtaatga gctgtacctg gcttcccttg acgagaaatt
 8041 tcagtgaa gcccggcct ggcgattgtatc tgcgtacctg gcttcccttg acgagaaatt
 8101 cctgttcatc ttctgtttcg gtgggtgtca tgctgacgag ccccccggg aggcaagtgc
 8161 agaccccgcc gcgggaggggg cgagactgaa ggaccagagc ggcgaggctg gagctgtcca
 8221 gagtcctgag acgctcgga ctcaggttag tagtaggaa cagaagatta acttgcata
 8281 tctttccag ggcgtgcggg aggttcagat ggtacttgat ttccacaggt tcggtttag
 8341 agatgtcaat ggcttgcagg gttccgtgtc ctttggcgc cactaccgtat cttttttt
 8401 ttctttgtatc cgggtgtgtc tcttgcgtt cttgtatcgt cagaagcgat gacggggacg
 8461 cgcgcggg ggaagcggtt gttccggacc cggaggcatg gctggtagtg gcacgtcg
 8521 gccgcgcacg ggcagggttct ggtactgcgc tctgagaaga cttgcgtgc ccaccac
 8581 tcgattgacg tcttgcgtatc gacgtctgtc ggtgaaagct accggcccccg tgagctgaa
 8641 cctgaaaagag agttcaacag aatcaatttc ggtatcgta accgcagctt gtctcagtat
 8701 ttcttgcgtacg tcaccagagt tgccgtgtat ggcgatctcc gccatgaaact gtcgatttc
 8761 ttcctctgtatc agatctccgc gaccgcgtct ctcgacggtg gccgcgaggt cattggagat
 8821 acggcccatg agttgggaga atgcagtcat gcccgcctcg ttccagacgc ggctgtaaac
 8881 cacggcccccc tcggagtctc ttgcgcgcat caccacctga gcgagggttaa gctccacgt
 8941 tctggtaag accgcatagt tgcataggcg ctgaaaagg tagttgatgt tggtggcaat
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 9061 cagacttcc aagcgtctca tggcgtctca gaagtccacg gcaaaaattaa aaaactggga
 9121 gttcgcgcg gacacgggtca attcctcctc gagaagacgg atgagttcgg ctatgggg
 9181 ccgtacttcg cgttgcgaaagg ctccgggat ctcttcttcc tcttcttatct cttctccac
 9241 taacatctct tcttcgtt caggcggggg cggagggggc acacggcgcac gtcgacggcg
 9301 cacggcaaa cggtcgtatc atcgttcaat gaccctccg cggcggcggc gcatggtttc
 9361 agtgcggcg cggccgttct cgcgcggcgc cagagtaaaa acaccgcgc gcatctcc
 9421 aaagtggta ctggggagggtt ctccgtttgg gaggggagg ggcgttgcata tacattttat
 9481 taattggccc gttagggactg cgcgcagaga tctgtatcgtc tcaagatcca cgggatctga
 9541 aaacccctcg acgaaaggct ctaaccaggc acatgtccaa gtagggctgatcgt
 9601 ttgtggcgg ggggtgttat gtgttgcgtc tgggtcttct gttcttctt catctggga
 9661 aggtgagacg atgcgtctgg tgatgaaatt aaagtaggca gttctaagac ggcggatgg
 9721 ggcgaggagc accaggtctt tgggtccggc ttgctggata cgcaggcgat tggccattcc
 9781 ccaagcatta tcctgacatc tagcaagatc ttgttagtag tcttgcgtatc gccgtctac
 9841 gggacttct tcctcacccg ttctgcctatc catacgatcgtc gtcgacggc
 9901 ttgtaccagt gccaagtctc ctacgactct ttcggcggagg atggcttgct gtacttgg
 9961 gagggggct tgaaagtcat caaaatccac aaagcggtgg taagccccgg tattatgg
 10021 gtaagcacag ttggccatgc ctgaccgtt aactgtctgg tgaccaggc gcacgagtc
 10081 ggtgtatata aggccgcata aggccgggtt gtcggatggcgtt gtaatcgatc
 10141 cagatactgg taacctataa gaaaatgcgg cgggtgttgg cgttagagag gccatcg
 10201 ttagctggc ggcgggggg cgaggtcttc caacataagg cgtgtatagc cgttagatgt
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 10321 gttccaaatg ttgcgtatgc gcatgaaatc gttcatatgtatc ggcacgggat
 10381 ggcgcgcgcg tcattgtatc tctatagaca cggagaaaaat gaaagcgatc
 10441 ctccgttagcc tggaggaacg tgaacgggtt ggttcgcggcgtt gtaatcgatc
 10501 tactcgagcc ggcggggagcc gccgcgtatc tggatgtgc actcccgatc
 10561 tacaaaaaatc caggatacg aatcgatcg tttgtctgt tggcgatgg caggaaatgg
 10621 agtccattttt ttttttttgc cgcgtatc gcatccgttgc gtcgac
 10681 acaacagccc ccctcgacgc agcagcaacc acaaaggct gtcctgtca
 10741 tgccgtgtc agcgggtgcgg gacagccgcg ctatgtatc gacttggaaag
 10801 actggcacgt ctaggtgcgc ttccggccg gccgcattcc gcaatgg
 10861 ttctcgccgag gctgtatgtc cccaaacagaa cctatttgc gacagaagcg
 10921 ggaggagatc cgagcttccc gctttaacgc ggttcgtgag ctgcgtc
 10981 aagacgatc ttgcgggacg aggatttcga agttgtatc gtcgacagg
 11041 cagggcacac gtggctgcag ccaacccgtt atccgatcc
 11101 gcttaatttc caaaatgtt ttaataatca tgcgtatc gtcatttgc
 11161 cacccttgcgatc ttgtatgc gatggatc gatggatc
 11221 caaacctctg accgcacacg tggatgtatc ggtcaac
 11281 cagagaggcg ctgctcaaca tcaccgcacc
 11341 cattctacag agtatacatag tgcaggagcg
 11401 catcaattac tcgggtttga gcttggaaa
 11461 atacgttccc atagacaagg aggtgaagat
 11521 ggtgttgacc ctgagcgatc atcttgggt
 11581 gagcgcgcagc aggaggcgcc agttaagcg
 11641 tctaactgga gcttggaaaccg agggtgagaa

FIG. 3A-3

FIG. 3A-4

15601 atctactgtg gacgcaggtta ttgacagtgt agtggctgac gctcgcaact atgctcgacg
 15661 taagagccgg cgaaggcgca ttgccagacg tcaccgagct accactgcca tgcgagcagc
 15721 aagagctctg ctacgaagag ctagacgcgt ggggcgaaaga gecatgctta gggcggccag
 15781 acgtgcagct tcgggcgcca gcgcggcag gtcggcagg caagcagccc ctgtcgacgc
 15841 ggcgactatt gccgacatgg cccaatcgcg aagaggcaat gtatactggg tgcgtacgc
 15901 tgccaccggt caacgtgtac ccgtgcgcac ccgtccccct cgcaactaga agatactgag
 15961 cagttctccga tggtgtgtcc cagcggcgag gatgtccaag cgcaaataca aggaagaaaat
 16021 gctgcagggtt atcgcacccgt aagtctacgg ccaaccgtt aaggatgaaa aaaaaccccg
 16081 caaaatcaag cgggtaaaaaa aggacaaaaaa agaagaggaa gatggcgatg atggctggc
 16141 ggagtttggc cgcgagttt cccacggcg acgcgtcaca tggcgtgggc gcaaagttcg
 16201 acatgtgtt agacctggaa ctccgggtgtt cttaacacc ggcgagcgtt caagcgtac
 16261 ttttaagcgt tcctatgtat aggtgtacgg gatgtatgtat ttttgagc aggcagctga
 16321 ccgatttaggc gagtttgctt atgcaagcgc tagtagaata aatcccaagg atgaaacagt
 16381 gtccataccccc ttggatcatg gaaatcccac ccctagttt aaaccggtca ctttcagca
 16441 agtgttaccc gtaactccgc gaacaggtgt taaacgcgaa ggtgaagatt tttatccac
 16501 tatgcaactg atggtgccca aacgcagaaa gttggaggac gttttggaga aagtaaaagt
 16561 ggatccagat attcaacccgt aggttaaagt gagaccatt aagcaggtag cgcctggct
 16621 gggagttacaa actgttagaca tttaaaattcc cactgaaatg atggaagtgc aaactgaacc
 16681 cgc当地ccctt actgc当地ccctt ccactgaaatg gcaaaacggac ccatggatgc ccatgc当地
 16741 tacaactgac gccc当地ccgtt ccactcgaaatg atccgc当地 aagtacggtc cagcaagtt
 16801 gttgatgccc aactatgtcg tacacccatc tattatccctt actctgggtt accggggcac
 16861 tcgctactat cgc当地ccggaa acagtaacttc cgc当地ccgtc cgaagacac ctgcaatcg
 16921 cagtc当地ccgc当地 cgttagacgc caagcaaaacc gattccggc当地 gccc当地gggtgc
 16981 cgc当地ccatggt agtgc当地ggaa ctttgacact gccglocalggc当地 ctttaccatc
 17041 cacttaatca atggtgccc当地 tgccctccgtt cagatatggc ctttacttgc cgc当地ccgtc
 17101 ttcccatcac tggttacccg ggaagaaaact cgc当地ccgttag aagagggatg ttggggccg
 17161 gaatgc当地cgc当地 ctacaggccg cggcgtgcta tccgcaagca attgc当地gggtt
 17221 cagcccttaat tccaattatc gtc当地ccgtc当地 ttggc当地caat accaggcata
 17281 cggttcaggc ctc当地ccacgc当地 cattgacattt ggaaaaaaaaaaaa aaaaactata
 17341 acaatggact ctgacactcc tggtaactgtg actatgtttt ctttagagatg gaagacatca
 17401 attttcatc cttggctccg cgacacccgc当地 cgaagccgtt catgggc当地 tggagcc
 17461 tcggcacgag ccaactgaac gggggccctt tcaattggag cagttactgg agcgggctt
 17521 aaaatttgg ctc当地ccaccataaaaacatacg ggaacaaagc ttggaaacagc agtacagg
 17581 aggccgcttag aaataaaactt aaagaccaga acttccaaaca aaaagtagtc gatgggatag
 17641 cttccggat caatggatgt gtagattttt ctaaccaggc tggc当地ggaaa aagataaaaca
 17701 gtc当地ccgttgg cccggccca gcaacccccc当地 gtgaaatgc当地 agtggaggaa
 17761 cggccagaaaa acggccgac aaggc当地ccgc当地 gtc当地ccgttgg ggaagagac
 17821 gc当地ccatgtg accgc当地ccctt tatgaggaag caca当地ccgttgg tggaaatgccc
 17881 cgatagcccc tatggccacc ggggtgatga aaccccttca gttgcatgc cccgtcc
 17941 tggatttgcc cc当地cccttct gctgctactg ctgtaccgc当地 ttctaaaggct
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 21241 cGGGGGTTCA tGGCCCCGA tAAAGTCGCC tGTGCTATTG tAAATAACGGC CGGACGTGAG
 21301 acGGGGGGAG aGCACTGTT ggCTTCTGGT tGGAACCCAC GTTCTAACAC CTGCTACCTT
 21361 tttGATCCTT ttGATTCTC ggATGATCGT CTCAAACAGA ttTACCAAGT tGAATATGAG
 21421 ggtCTCCTGC gCCGcAGCGC tCTTGTCTACC aAGGACCGGT gTATTACGCT gGAAAATCT
 21481 accCAGACCG TGCAGGGCC CGTTCTGCC gcCTGCGGAC tttCTGCTG CATGTTCTT
 21541 catGCCTTG tGCACTGCC tGACCCTCCC atGGACGGAA ACCCCACCAT gAAATTGCTA
 21601 actGGAGTGC caAAACAACAT gCTTCAATTCT CTCAAAGTCC AGCCCACTC GTGTGACAAT
 21661 caAAAGACAC tCTACATTt tCTCAATACC CATTGCGCTT atTTGCGTC TCATCTGACA
 21721 cacATCGAAA gggCCACTGC gTTGACCGT atGGATGTGc AATAATGATT CATGTAACAA
 21781 acGTGTTCAA tAAACAGCAC tttATTTTT acATGTATG AGGCTCTGGA ttACTTATT
 21841 attTACAAGT cGAATGGGTT ctGACGAGAA tcAGAAATGAC CGCAGGCAg TGATACTTG
 21901 cggAACTGAT acTTGGGTT ccACTTGAAT tCGGGAAATCA CCAACTTGGG AACCGGTATA
 21961 tcGGGcAGGA tGTCACTCCa cAGCTTCTG gTCAGCTGCA aAGCTCCAG CAGGTAGGA
 22021 gCCGAAATCT tGAAATCACA attAGGACCA gTGTCTGAG CGCAGAGGT GCGGTACACC
 22081 ggATGcAGC actGAAACAC catCAGCGAC gGATGTTA CGTTGCCAG CACGGTGGGA
 22141 tCTGAAATCA tGCCACATC catGTTCA gCATTGGCAA tGCTGAACGG gGTCTATTT
 22201 cAGGTCTGCC tACCCATGC gggCACCCAA tTAGGCTTGT gTTACAAATC GCAGTGCAGG
 22261 gggATCAGTA tCATCTTGC CTGATCCTGT CTGATTCTG gataCACGGC TCTCATGAAA
 22321 gCAtCATATT gCTTGAAGC CTGCTGGGT ttACTACCT CGTATAAAA CATCCCGAG
 22381 gacCTGCTG aaaACTGTT agCTGCGAG ccGGCAtCAT tCACACAGCA GCGGGCGTCA
 22441 ttGTTGGCTA tttGcAccAC actTCTGCC cAGCGGTTT gGGTgATTT GttCGCTCG
 22501 ggATTCCTC tCAAGGCTG tTGTCCGTT tCGCTGCCA catCCATCTC gATAATCTG
 22561 tCCTCTGAA tCATAATACt gCCATGCAAG cACTTCAGT tGCCCTATA AtCATTGcAG
 22621 cCATGAGGCC aCAACGcaca GcCTGTACAT tCCCAATTt gGTGGCGAT CTGAGAAAAAA
 22681 gaATGTATCA tTCCCTGcAG aAAATTTCCC AtCATGTC tCAGTGTCTT GTGACTAGTG
 22741 aaAGTtaACT ggATGCTCG gTGTCTCTG tTCACGTACT gGTGACAGAT GCGCTTGTAT
 22801 tGTTCTGTCT gCTCAGGGCAT tagTTAAAAG gAGGTTCTAA gTTGTTATC CAGCCTGTAC
 22861 ttCTCCATCA gCAGACACAT CACTTCCATG CCTTCTCCC AAGCAGACAC CAGGGCAAG
 22921 ctaATCGGT tCTTAACAGT gCAGGcAGCA gCTCCTTAg CCAGAGGGTC AtCTTGGCG
 22981 atCTTCTCAA tGCTTCTTTT gCCATCCTC tCAACGATGC gCACGGGCGG gTAGCTGAA
 23041 cCCACTGCTA caAGTGCcGc CTCTTCTC tCTTCTTCGc tGTTCTGACT gATGCTTGC
 23101 atGGGGACAT gTTGGTCTT CTTGGCTC tTTTGGGG gTATCGGAGG AGGAGGACTG
 23161 tCGCTCCGTT CGGAGACAG ggAGGATTGT gACGTTGCGC tCACCAATTAC CAACtGACTG
 23221 tCGGTAGAAG aACCTGACCC cACACGGCGA CAGGTGTTc tCTTCGGGGG CAGAGGTGGA
 23281 ggcGATTGCG aAGGGCTGCG gTCCGACCTG gAAGGCGGAT gACTGGCAGA ACCCCTCCG
 23341 cGTTGGGGG tGTGCTCCCT gTGGCGGTG CTTAACTGAT tCCCTCGCG GCTGGCCATT

FIG. 3A-6

23401 gtgttctcct aggcagagaaa acaaaca gaca tggaaactca gccattgctg tcaacatcg
 23461 cacgagtgcc atcacatctc gtcttcagcg acgaggaaaa ggagcagagc ttaagcattc
 23521 caccgcccag tcctgcccacc acctctacc tagaagataa ggaggtcgac gcatatctatg
 23581 acatgcagaa taaaaaaagcg aaagagtctg agccagacat cgaacaagac ccgggctatg
 23641 tgacaccggt ggaacacgag gaagagttga aacgcttct agagagagag gatgaaaact
 23701 gccccaaaaca gcaagcggat aactatcacc aagatgctgg aaatagggat cagaacaccg
 23761 actacctcat agggcttgc gggaaagacg cgctccttaa acatctagca agacagtac
 23821 tcatagtcaa ggatgcatta ttggacagaaa ctgaagtgcc catcagtgtc gaagagctca
 23881 gcccgcctc cgagcttaac ctatttcac ctcgtactcc ccccaaacgt cagccaaacg
 23941 gcacccgtca gccaaatctc cgctttaact ttatccagc ttttgctgt ccagaagtac
 24001 tggctaccta tcacatctt tttaaaatc aaaaaattcc agtctctgc cgcgctaattc
 24061 gcacccgcgc cgatgcctt ctcatactgg gacctgttc acgcttaccc gatatacgctt
 24121 ctttggaaaga gttccaaag atcttcgagg gtctggcaaa taatgagact cggggcccaa
 24181 atgctctgca aaagggagaa aatggcatgg atgagcatca cagcgttctg gtggaatttg
 24241 aaggcgataa tgccagactc gcagttactca agcgaagcgt cgaggtcaca cactttgcat
 24301 accccgctgt caacctgccc cctaaagtca tgacggccgt catggaccag ttactcatta
 24361 agcgcgcgaag tccccttca gaagacatgc atgaccaga tgcctgtgat gagggttaaac
 24421 cagtggtcag tgatgagcag ctaacccgt ggcgtggccac cgactctccc cgggatttgg
 24481 aagagcgtcg caagcttatg atggccgtgg tgctgggttac cgtagaacta gagtgtctt
 24541 ggcgttctt taccgattca gaaaccttgc gcaaaactcgaa agagaatctg cactacactt
 24601 ttagacacgg ctttgtgcgg caggcatca agatataa cgtggaaactc accaacctgg
 24661 ttccttacat gggtattctg catgagaatc gcctaggaca aagcgtgctg cacagcaccc
 24721 ttaaggggaa agccgcgt gattacatcc gcgattgtgt ttagtcttac ctgtgccaca
 24781 cgtggcaaaac cggcatgggt gtatggcagc aatgtttaga agaacagaaac ctgaaagagc
 24841 taaacaagct cttacagaaa tctcttaagg ttctgtggac agggttcgac gagcgcaccg
 24901 tcgcgtccga cctggcagac ctcatcttc cagagcgtct cagggttact ttgcgaaacg
 24961 gactgcgtga ctttatggc cagacatgc ttaacaaattt tcgctctttc atcctggAAC
 25021 gctccgttat cctggccccc acctgtcgcc cactgcctc cgactttgtg cctctccac
 25081 accgcgaatg cccccccccc statggatgc actgtctactt gtcccgctg gccaactacc
 25141 ttccttacca ctgcgtatgt atcgaggatg tgagcggaga cgcttgctg gagtgtca
 25201 gccgcgtccaa tctgtgcacg ccccccgggt ccctagcttgc caaccccccggg ttgatgagcg
 25261 aaacccagat aataggcacc tttgaattgc aaggccccag cagccaaggc gatgggtctt
 25321 ctccctggca aagtttaaaa ctgaccggcc gactgtggac ctccgcctac ttgcgcaagt
 25381 ttggcccccggaa agattaccac ccctatgaaa tcaagtctta tgaggaccaa tcacagcctc
 25441 cggaaaggccgaa actttcgccc tgcgtcatca cccagggggc aattctggcc caattgcaag
 25501 cccatccaaaa atcccgccaa gaatttctac tggaaaaaggg taaggggggtc taccttgacc
 25561 cccagaccggg cgagggaaactt aacacaagggt tccctcaggaa tgcccaacacg acgagaaagc
 25621 aagaagttga aggtgcagcc gcccggccca gaagatatgg aggaagattt ggacagtc
 25681 gcagaggaag cggaggaggaa ggacagtc gaggacagtc tgaggagaaga cagttggag
 25741 gagaaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaacca gttatcttcg
 25801 gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggccgggt
 25861 cccagccgtt gatgggacca gaccggacgc ttcccgaacc caaccagcgc ttccaagacc
 25921 ggtaagaagg atcggccggg atacaagtcc tggggggggc ataagaatgc catcatctcc
 25981 tgcttgcatt agtgcggggg caacatattcc ttacacgcggc gctacttgtt attccaccat
 26041 ggggtgaact ttccgcgca tttttgcatt tactaccgtc acctccacag cccctactat
 26101 agccagcaaa tcccgccagt ctcgcacat aagacacgc gccggcgcacct ccaacagaaa
 26161 accagcagcg gcagtttagaa aatacacaac aagtgcagca acaggaggat taaagattac
 26221 agccaacggc ccagcgcaaa cccgagagtt aagaatcgg atctttccaa ccctgtatgc
 26281 catctccag cagagtccgg gccaagagca ggaactgaaa ataaaaaaacc gatctctcg
 26341 ttgcgtcacc agaagtgtt tttatcacaat gggcggccatc gggcggcc gactctcg
 26401 ggacgcgcgg gctcttctca acaagactgt cgcgctgtact cttaaagaggt aggacgc
 26461 cgcgttatt caaaaaaaaggc gggaaattaca tcatccctcgaa catgatggaaa gaaattccca
 26521 cgccttacat gtggagttat caggccccaaa tgggattggc ggcaggccccc tcccaggact
 26581 actccaccccg catgaattgg ctcagcgccg ggccttcat gatttctcgaa gttaatgata
 26641 tacgcgccta ccgaaacccaa atactttgg aacagtctcg tcttaccacc acgcccccc
 26701 aacacccat tcccgccaaat tggccgcggc ccctagtgta ccaggaaagt cccgccttca
 26761 ccactgtatt acttcctcgaa gacggccagg ccgaagtcca aatgactaat gcaggtgcgc
 26821 agttacgggg cggctccacc ctatgtcgac acaggccctcg gcataatata aaacgcctga
 26881 tgatcagagg cggaggtatc cagtcacacg acgactcggt gagctctccg cttggcttac
 26941 gaccggacgg aatctttcag attggccggct gcccggagatc ttcccttacc cctcgctcagg
 27001 ctgttctgac ttggaaaatc tgcttctcgaa aaccccgctc gggcggaaatc gggaccgttc
 27061 aatttgttggaa ggagtttact ccctctgttccatc aacttcaccc ctttccggaa ttccttggc
 27121 actacccggaa cggatccata ccgaacttcg acgcgattag cagtcagtg gacggctacg
 27181 attgtatgtct ggtgcgcgg ctgagctatc tcggctcgaa catcttagacc actgcccgg
 27241 ctttcgtgc tttggccggg aactcattga gttcatctac ttgcacttcc ccaaggatca

FIG. 3A-7

FIG. 3A-8

31201 tattaacacc ttatggactg gaataaaccc tccacctaac tgtcaaattt gggaaaacac
 31261 taatacaaat gatggcaaac ttacttagt attagtaaaa aacggaggc ttgttaatgg
 31321 ctacgtgtct ctagttggtg tatacgacac tgtgaaccaa atgttcacac aaaagacgc
 31381 aaacatccaa ttaagattt attttgactc ttctggaaat ctattaactg atgaatcaga
 31441 cttaaaaaattt ccacttaaaa ataaatcttc tacagcgacc agtgaardt tagccagcag
 31501 caaagcctt atgccaagta ctacagctt tcccttcaac accactacta gggatagtga
 31561 aaactacatt catggaatat gttactacat gactagttt gatagaagtc tatttccctt
 31621 gaacatttct ataatgctt acagccgtat gatttcttcc aatgttgccc atgccataca
 31681 atttgaatgg aatcttaatg caagtgaatc tccagaaagc aacatagcta cgctgaccac
 31741 atccccctt ttctttctt acattacaga agacgacaac taaaataaag tttaaatgtt
 31801 tttttttttt atcacaaaat tcgagtagtt attttgccctt caccttccca tttgacagaa
 31861 tacaccaatc tctcccccacg cacagcttta aacatttgg aaccatttga taccatttga gatagacatt
 31921 gtttttagttt ccacatttca aacatttca gaggcgacca atctggggtc agttagat
 31981 aaaaatccat cgcgatagtc tttaaaagcg ctttcacagt ccaactgtcg cgatgcgaa
 32041 tccggagtct ggatcacggt catctggaa gagaacgatg ggaatcataa tccgaaaacg
 32101 gtatcgacg atttgttctt atcaaaccctt caagcagccg ctgtctgcgt cgctccgtgc
 32161 aactgctgtt tatggatca gggccacag tgccttgaag catgattttt atagccctt
 32221 acatcaactt tctggtgca tgcgcgcagc aacgcattctt gatttcaactt aatctttgc
 32281 agtaggtaca acacattttt acaatattgt ttaataaaccat ttaataataaa
 32341 caaaactcat atctgtatata atcgccttgc catgaccatc ataccaatgt ttaataataaa
 32401 ttaaatgacat tttcccttcaaa aacacacttcc cccatatacat gatctttt ggcatgtca
 32461 tattaacaat ctgtctgtac catggacaac gttggtaat catgcaaccc aatataacct
 32521 tccggaacca cactgccaac accgctcccc cagccatgca ttgaagtgaa ccctgctgat
 32581 tacaatgaca atgaagaacc caattctctc gaccgtgaat cacttgagaa tgaaaaatat
 32641 ctatagtggc acaacataga cataaaatgca tgcattttt cataatttt aactccctag
 32701 gatttagaaa catatccacg ggaataggaa gctcttgcag aacagtaaag ctggcagaac
 32761 aaggaaagacc acgaacacaa cttacactat gcatagtcat agtacacaa tctggcaaca
 32821 gcgggtggtc ttctgtcata gaagctcggt tttcattttt ctcacaacgt gtaactgg
 32881 ctctgtgtt aagggtatgt ctggcgcatg atgtcgagcg tgcgcgcaac ctgtcataa
 32941 tggagttgtct tcctgacatt ctgttattttt gtatagcaaa acgcggccct ggcagaacac
 33001 actcttcttc gccttctatc ctggcgcttta gctgttccg tggatagtt caagtacagc
 33061 cacactcttta agttggtcaa aagaatgctg gcttcagttt taatcaaaac tccatcgcat
 33121 ctaattgttc tgaggaaatc atccacggta gcatatgcaat atcccaacca agcaatgca
 33181 ctggattgacg tttcaagcag gagaggagag ggaagagacg gaagaaccat gttatattt
 33241 attccaaacg atctcgcaatg acttcaattt gtagatcgca cagatggcat ctctcgcccc
 33301 cactgttttgc gtggaaaagc acagcttaaaat cttttttca aggtgtctaa
 33361 cgggtggcttca caacaaagcc tccacgcgca catccaaagaa caaaagaata cccaaagaag
 33421 gagcatttttca taactccctca atcatcatat tacattctt caccattccc agataatattt
 33481 cagcttccca gccttgaattt attctgttca gttttgttgg taaatccaaat ccacacatta
 33541 caaacaggc ccggaggccg ccctccacca ccattctttaa acacaccctc ataatgacaa
 33601 aatatcttgc tcctgtgtca cctgttagcga attgagaatg gcaacatcaa ttgacatgcc
 33661 ctgtgtctta agttctttttt taagttcttag ttgtaaaaac tctctcatat tattcacaaa
 33721 ctgtgttagcc aagagcccc cggaaacaag agcaggggac gctacagtgc agtacaagcg
 33781 cagacccccc caattggctc cagaaaaaaat aagatggaa taagcatatt gggAACGCC
 33841 agtaatatca tcgaagttgc tgaaaatata atcaggcaga gtttcttgc taaaatttgaat
 33901 aaaaagaaaaa tttgccaaaaaa aacattcaa aacctcttggg atgcaaatgc aataggttac
 33961 cgcgcgtgc tccaacattt ttagtttgc attagtcgc aaaaataaaaa aaaaaaaacaa
 34021 gcgtcatatc atagttagcct gacgaacagg tggataaatc agtctttcca tcacaagaca
 34081 agccacaggc tctccagctc gaccctcgta aaacctgtca tgggtattaa acaacacgc
 34141 cggaaagtcc tcgcgggtgc cagcatgaat aattcttgcatttgcataca atccagacat
 34201 gtttagcatca gttaaacgaga aaaaacagcc aacatagctt ttgggtataa ttatgtttaa
 34261 tcgttaagtat aacaaaggcc cccctcgccg atacaatgtt aaaaaggcagc gagaataaaaa
 34321 aatataattt tttctctgtt gctgttcagg caacgtcgcc cccggccctt ctaatataac
 34381 atacaaagcc tcattcggca tggcttacca gacaaagtac agcgggcacg cacaagctct
 34441 aaagtcaatc tccaacccctt ccacaatata tatacacaag ccctaaactg acgtaatgg
 34501 agtaaagtgt aaaaaatccc gccaaacccca acacacaccc cggaaactgcg tcaccaggga
 34561 aaagtacagt ttcaacttccg caatcccaac aagcgtcact tccttttctt caccgtacgt
 34621 cacatcccat taacttgcac cgtcattttc ccacggccgc gccggcccg ttagccgtta
 34681 accccacacgcaatccacac acaccccaac atttttaaaaa tcacctcatt tacatattgg
 34741 caccatttca tctataaggt atattatttgc tgatg

FIG. 3A-9

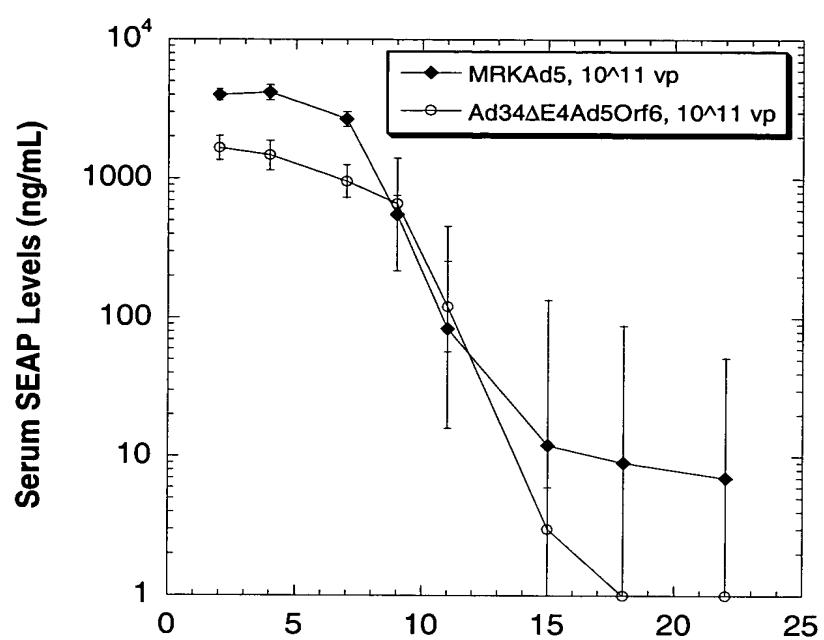


FIG. 4

Vaccine Wk 0, 4, 24	Monkey ID	Pre		Wk 4		Wk 8		Wk 24		Wk 28		Wk 36	
		Mock	Gag*	Mock	Gag	Mock	Gag	Mock	Gag	Mock	Gag	Mock	Gag
MRKAd5gag, 10 ¹¹ vp	00C018	1	5	13	1025	0	824	8	756	0	474	0	383
MRKAd5gag, 10 ¹¹ vp	00C034	0	4	5	219	5	404	3	445	3	339	0	216
MRKAd5gag, 10 ¹¹ vp	00C058	4	4	3	1086	0	440	4	1439	0	2338	0	940
Ad34ΔE1gagΔE4Ad5Orf6, 10 ¹¹ vp	00D038	6	8	5	111	1	301	0	224	1	536	0	233
Ad34ΔE1gagΔE4Ad5Orf6, 10 ¹¹ vp	00D042	6	30	4	89	4	264	1	73	0	181	0	69
Ad34ΔE1gagΔE4Ad5Orf6, 10 ¹¹ vp	00D066	3	18	1	118	1	816	0	429	0	439	0	273

FIG. 5

Vaccine	Monk ID	IFN- γ ⁺ CD4 ⁺ CD3 ⁺ per 10 ⁶ Lymphocytes		IFN- γ ⁺ CD8 ⁺ CD3 ⁺ per 10 ⁶ Lymphocytes	
		Mock	Gag ^a	Mock	Gag ^a
Ad34ΔE1gagΔE4Ad5Orf6	00D038	22	154	130	450
	00D042	32	118	96	171
	00D066	12	238	150	442

FIG. 6

Sequence of the open reading frame for FL-gag (human codon optimized)

atgggtgctaggcattctgtctgtgtggtagactggacaagtggagaagatcaggctgaggcctggcgc
aagaagaagtacaagctaaagcacattgtgtggcctccaggagactggagaggttgctgtgaaccctggcctg
ctggagacactctgaggggtgcaggcagatcctggccagtcgcaggccctcgaaacaggctctgaggagctg
aggtccctgtacaacacagtggctaccctgtactgtgtgcaccagaagattgtatgtgaaggacaccaaggaggc
ctggagaagattgaggaggcagaacaagtccaagaagaaggcccagcaggctgctggcacaggcaactcc
agccagggttcccagaactaccccattgtgcagaacctccaggccagatggtcaccaggccatctccccccgg
accctgaatgcctgggtgaagggtggaggagaaggccttcctccctgaggtgatccccatgttctctgcccctg
tctgaggggccaccccccaggacactgtaacacagtggggccatcaggctgcacgatg
ctgaaggagaccatcataatgaggaggctgtcgtggacaggctgcacgctggccatgcagatg
ggccagatgaggcaggccagggtctgacattgtctggcaccacctccaccctccaggagcagattggctggatg
accaacaaccccccattccctgtggggaaatctacaagagggtgatcatcctggcctgaacaagattgtgagg
atgtactccccccacccatccctggacatcaggcaggccccaaggagccctcaggactatgtggacaggttc
tacaagaccctgagggtctgagcaggcccccaggaggtgaagaactggatgacagagaccctgtggcagaat
gccaaccctgactgcaagaccatcctgaaggccctggccctgtgccaccctggaggagatgacagcctgc
cagggggtggggggccctggtcacaaggccagggtctggctgaggccatgtccagggtgaccaactccgcccacc
atcatgatgcaggggcaacttcaggaccaggagacactgtggcaagggtggccac
attgccaagaactgttagggccccccaggagaagaagggtctggaaagtgtggcaaggaggccaccagatgaaggac
tgcaatgaggaggcaggccaaacttcctggccaaaatctggcccccacaaggggcaggctggcaacttcctccag
tccaggccctgagcccacagccctcccgaggagtcttcagggttggggaggagaagaccaccccccagccagaag
caggagccattgacaaggagctgtacccctggcctccctgaggtccctgtttggcaacgaccctcccccag
taaaataaaagcccggcagat

FIG. 7

1 ccattgcata cggttatcc atatcataat atgtacattt atattggctc atgtccaaca
 61 ttaccgccc gttgacattg attattgact agttataat agtaatcaat tacggggct
 121 ttagttcata gccccatataat ggagttccgc gttacataac ttacggtaaa tggcccgct
 181 ggctgaccgc ccaacgaccc cccgcattt acgtcaataa tgacgtatgt tcccatagta
 241 acgccaatag ggactttcca ttgacgtcaa tgggtggagt attacggta aactgcccac
 301 ttggcagttac atcaagtgtt tcatatgcca agtaccccc ctattgacgt caatgacggt
 361 aaatggcccg cctggcatta tgcccagttac atgacccat gggactttcc tacttggcag
 421 tacatctacg tattagtcat cgcttattacc atgggtatgc ggttttggca gtacatcaat
 481 gggcggttga agcggttga ctcacgggta tttccaagtc tccacccat tgacgtcaat
 541 gggagtttgt tttggcacca aaatcaacgg gactttccaa aatgtcgtaa caactccgaa
 601 ccattgacgc aaatggccgg taggcgtgtt cggggagg totatataag cagagctcg
 661 ttagtgaacc gtcagatcgc ctggagacgc catccacgct gtttgaccc ccatagaaga
 721 caccgggacc gatccagcc cccggccgg gaacggtgca ttggAACGCG gattcccg
 781 gccaagagtg agatctaccA TGGGTGCTAG GGCTTCTGTG CTGTCCTGGT GTGAGCTGGA
 841 CAAGTGGGAG AAGATCAGGC TGAGGCCCTGG TGGCAAGAAAG AAGTACAAGC TAAAGCACAT
 901 TGTGTGGGCC TCCAGGGAGC TGGAGAGGTT TGCTGTGAAC CCTGGCCTGC TGGAGACCTC
 961 TGAGGGGTGC AGGCAGATCC TGGGCCAGCT CCAGCCCTCC CTGCAAACAG GCTCTGAGGA
 1021 GCTGAGGTCC CTGTACAACA CAGTGGCTAC CCTGTACTGT GTGCACCAGA AGATTGATGT
 1081 GAAGGACACC AAGGAGGCC TGGAGAAGAT TGAGGAGGAG CAGAACAAAGT CCAAGAAGAA
 1141 GGCCCAGCAG GCTGCTGCTG GCACAGGCAA CTCCAGCCAG GTGTCCCAGA ACTACCCCAT
 1201 TGTGAGAAC CTCCAGGGCC AGATGGTGCA CCAGGCCATC TCCCCCCGGG CCCTGAATGC
 1261 CTGGGTGAAG GTGGTGGAGG AGAAGGCCTT CTCCCCCTGAG GTGATCCCCA TGTTCTCTGC
 1321 CCTGCTGAG GGTGCCACCC CCCAGGACCT GAACACCATG CTGAACACAG TGGGGGGCCA
 1381 TCAGGCTGCC ATGCAGATGC TGAAGGAGAC CATCAATGAG GAGGCTGCTG AGTGGGAG
 1441 GCTGCATCCT GTGCACGCTG GCCCCATTGC CCCCAGCCAG ATGAGGGAGC CCAGGGCTC
 1501 TGACATTGCT GGCACACCT CCACCCCTCCA GGAGCAGATT GGCTGGATGA CCAACAAACCC
 1561 CCCCCATCCCT GTGGGGGAAA TCTACAAGAG GTGGATCATC CTGGGCCCTGA ACAAGATTGT
 1621 GAGGATGTAC TCCCCCACCT CCATCCTGGA CATCAGGCAG GGGCCCAAGG AGCCCTTCAG
 1681 GGACTATGTG GACAGGTTCT ACAAGACCC CAGGGCTGAG CAGGCCCTCC AGGAGGTGAA
 1741 GAACTGGATG ACAGAGACCC TGCTGGTGCA GAATGCCAAC CCTGACTGCA AGACCATCCT
 1801 GAAGGCCCTG GGCCCTGCTG CCACCCCTGGA GGAGATGATG ACAGCCTGCC AGGGGGTGGG
 1861 GGGCCCTGGT CACAAGGCCA GGGTGTGCTGGC TGAGGCCATG TCCCAGGTGA CCAACTCCGC
 1921 CACCATCATG ATGCAGAGGG GCAACTTCAG GAACCAAGAGG AAGACAGTGA AGTGTCTCAA
 1981 CTGTGGCAAG GTGGGCCACA TTGCCAAGAA CTGTAGGGCC CCCAGGAAGA AGGGCTGCTG
 2041 GAAGTGTGGC AAGGAGGCC ACCAGATGAA GGACTGCAAT GAGAGGCAGG CCAACTCCCT
 2101 GGGCAAAATC TGGCCCTCCC ACAAGGCCAG GCCTGGCAAC TTCTCCAGT CCAGGCCCTGA
 2161 GCCCACAGCC CCTCCCGAGG AGTCCCTCAG GTTTGGGAG GAGAAGACCA CCCCCAGCCA
 2221 GAAGCAGGAG CCCATTGACA AGGAGCTGTA CCCCCCTGGCC TCCCTGAGGT CCCTGTTGG
 2281 CAACGACCCC TCCTCCCAAGT AAaataaaagc ccgggcagat ctgatctgt gtgccttcta
 2341 gttgccagcc atctgttgc tgcccctccc ccgtgccttc cttgaccctg gaagggtgcca
 2401 ctcccactgt ctttcctaa taaaatgagg aaattgcata gcattgtctg agtaggtgtc
 2461 attctattct ggggggtggg gtggggcagc acagcaaggg ggaggattgg gaagacaata
 2521 gcaggcatgc tggggatgctg gtgggctcta

SEQ ID NO: 2

FIG. 8

1 ccattgcata cggttatcc atatcataat atgtacattt atattggctc atgtccaaca
 61 ttaccgccc gttgacattg attattgact agttataat agtaataat tacggggctca
 121 ttagttcata gccccatataat ggagttccgc gttacataac ttacggtaaa tggcccgct
 181 ggctgaccgc ccaacgaccc cccgcattt acgtcaataa tgacgtatgt tcccatagta
 241 acgccaatag ggactttcca ttgacgtcaa tgggtggagt attacggta aactgcccac
 301 ttggcagttac atcaagtgtt tcatatgcca agtaccccc ctattgacgt caatgacggt
 361 aaatggcccg cctggcatta tgcccagttac atgacccat gggactttcc tactttggcag
 421 tacatctacg tattagtcat cgcttattacc atgggtatgc ggttttggca gtacatcaat
 481 gggcggttgc agcggttgc ctacacggga ttccaagtc tccacccat tgacgtcaat
 541 gggagtttgt tttggcacca aaatcaacgg gactttccaa aatgtcgtaa caactccgccc
 601 ccattgacgc aaatggccgg taggcgtgtt cggggagg tctatataag cagagctcg
 661 ttagtgaacc gtcagatgcg ctggagacgc catccacgct gttttgaccc ccatagaaga
 721 caccgggacc gatccagccct cccggccgg gaacggtgca ttggAACGCG gattcccg
 781 gccaagagtg agatctaagt aagcttcctg cATGCTGCTG CTGCTGCTGC TGCTGGCCT
 841 GAGGCTACAG CTCTCCCTGG GCATCATCCC AGTTGAGGAG GAGAACCCGG ACTTCTGGAA
 901 CCGCGAGGCA GCCGAGGCC TGGGTGCCGC CAAGAAGCTG CAGCCTGCAC AGACAGCCGC
 961 CAAGAACCTC ATCATCTTC TGGGCATGG GATGGGGGTG TCTACGGTGA CAGCTGCCAG
 1021 GATCCCTAAAA GGGCAGAAGA AGGACAAACT GGGGCCCTGAG ATACCCCTGG CCATGGACCG
 1081 CTTCCCATAT GTGGCTCTGT CCAAGACATA CAATGTAGAC AAACATGTGC CAGACAGTGG
 1141 AGCCACAGCC ACGGGCTTACCG TGTGGGGGTG CAAGGGCAAC TTCCAGACCCA TTGGCTTGAG
 1201 TGCAGCCGCC CGCTTAACC AGTCAACAC GACACGGCG AACGAGGTCA TCTCCGTGAT
 1261 GAATCGGGCC AAGAAAGCAG GGAAGTCAGT GGGAGTGGTA ACCACCACAC GAGTGCAGCA
 1321 CGCCTCGCCA GCCGGCACCT ACGCCACAC GGTGAACCGC AACTGGTACT CGGACGCCGA
 1381 CGTGCCTGCC TCCGGCCGCC AGGAGGGGTG CCAGGACATC GCTACGCAGC TCATCTCAA
 1441 CATGGACATT GACGTGATCC TAGGTGGAGG CCGAAAGTAC ATGTTTCGCA TGGGAACCCC
 1501 AGACCCCTGAG TACCCAGATG ACTACAGCCA AGGTGGGACC AGGCTGGACG GGAAGAATCT
 1561 GGTGCAGGAA TGGCTGGGA AGGCCAGGG TGCCCGGTAT GTGTGGAAC GCACTGAGCT
 1621 CATGCAGGCT TCCCTGGACC CGTCTGTGAC CCATCTCATG GGTCTCTTG AGCCTGGAGA
 1681 CATGAAATAC GAGATCCACC GAGACTCCAC ACTGGACCCC TCCCTGATGG AGATGACAGA
 1741 GGCTGCCCTG CGCCTGCTGA GCAGGAACCC CCGCGGCTTC TTCCCTCTCG TGGAGGGTGG
 1801 TCGCATCGAC CATGGTCATC ATGAAAGCAG GGCTTACCGG GCACTGACTG AGACGATCAT
 1861 GTTCGACGAC GCCATTGAGA GGGGGGCCA GCTCACCCAGC GAGGAGGACA CGCTGAGCCT
 1921 CGTCACTGCC GACCACTCCC ACGTCTTCTC CTTCCGGAGGC TACCCCCCTGC GAGGGAGCTC
 1981 CATCTCGGG CTGGCCCTG GCAAGGCCG GGACAGGAAG GCCTACACGG TCCTCCCTATA
 2041 CGGAAACGGT CCAGGCTATG TGCTCAAGGA CGGCGCCCGG CCGGATGTTA CGGAGAGCGA
 2101 GAGCGGGAGC CCCGAGTATC GGCAGCAGTC AGCAGTGCCT CTGGACGAAG AGACCCACGC
 2161 AGGCAGGAGC GTGGCGGTGT TCGGGCCCGG CCGCGAGGC CACCTGGTTA ACGGCGTGCA
 2221 GGAGCAGACC TTCATAGCGC ACGTCATGGC CTTCGCCGCC TGCCCTGGAGC CCTACACCGC
 2281 CTGCGACCTG GCGCCCCCGG CGGGCACCA CGACGCCCGC CACCCGGGT AAcccgtggt
 2341 ccccgcttg cttccctgc tggccggac atcaggtggc ccccgctgaa ttggaaatcga
 2401 tcagaattca gtcgacgata tctgatcagc atctgatctg ctgtgccttc tagttgccag
 2461 ccatctgttg tttggccctc ccccgctgc tccttgaccc tgaagggtgc cactccact
 2521 gtccttcct aataaaatga ggaaattgca tcgcattgtc tgagttaggtg tcattctatt
 2581 ctggggggatg gggggggca gcacagcaag ggggaggatt gggaaagacaa tagcaggcat
 2641 gctggggatg cggggatgc ta

FIG. 9

PacI

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1 TTCTTAATTA ACATCATCAA TAATATAACCT TATTTGGAT TGAAGCCAAT  
AAGAATTAAT TGTAGTAGTT ATTATATGGA ATAAAACCTA ACTTCGGTTA

51 ATGATAATGA GGGGGTGGAG TTTGTGACGT GGCGCGGGC GTGGGAACGG  
TACTATTACT CCCCCACCTC AAACACTGCA CCGCGCCCCG CACCCTTGCC

101 GGCGGGTGAC GTAGTAGTGT GGCGGAAGTG TGATGTTGCA AGTGTGGCGG  
CCGCCCACTG CATCATCACA CCGCCTTCAC ACTACAACGT TCACACCGCC

151 AACACATGTA AGCGACGGAT GTGGCAAAAG TGACGTTTT TGTTGTGC  
TTGTGTACAT TCGCTGCCTA CACCGTTTC ACTGCAAAAA CCACACCGGG

201 GGTGTACACA GGAAGTGACA ATTTTCGCGC GGTTTAGGC GGATGTTGTA  
CCACATGTGT CCTTCACTGT TAAAAGCGCG CCAAATCCG CCTACAAACAT

251 GTAAATTTGG GCGTAACCGA GTAAGATTTG GCCATTTTCG CGGGAAAAGT  
CATTTAAACC CGCATTGGCT CATTCTAAC CGGTAAAAGC GCCCTTTGA

301 GAATAAGAGG AAGTGAAATC TGAATAATTT TGTGTTACTC ATAGCGCGTA  
CTTATTCTCC TTCACTTAG ACTTATTAAA ACACAATGAG TATCGCGCAT

351 ATATTGTCT AGGGCCCGGG GGACTTTGAC CGTTTACGTG GAGACTCGCC  
TATAAACAGA TCCC GGCGGCC CCTGAAACTG GCAAATGCAC CTCTGAGCGG

401 CAGGTGTTT TCTCAGGTGT TTTCCGCGTT CGGGGTCAAA GTTGGCGTT  
GTCCACAAAA AGAGTCCACA AAAGGCGCAA GGCCCAGTT CAACCGCAA

451 TATTATTATA GGCGGCCGCG ATCCATTGCA TACGTTGTAT CCATATCATA  
ATAATAATAT CCGCCGGCGC TAGGTAACGT ATGCAACATA GGTATAGTAT

501 ATATGTACAT TTATATTGGC TCATGTCCAA CATTACCGCC ATGTTGACAT  
TATACATGTA AATATAACCG AGTACAGGTT GTAATGGCGG TACAACGTGA

551 TGATTATTGA CTAGTTATTA ATAGTAATCA ATTACGGGGT CATTAGTTCA  
ACTAATAACT GATCAATAAT TATCATTAGT TAATGCCCA GTAATCAAGT

601 TAGCCCATAT ATGGAGTTCC GCGTTACATA ACTTACGGTA AATGGCCCGC  
ATCGGGTATA TACCTCAAGG CGCAATGTAT TGAATGCCAT TTACCGGGCG

651 CTGGCTGACC GCCCAACGAC CCCCGCCCAT TGACGTCAT AATGACGTAT  
GACCGACTGG CGGGTTGCTG GGGGCGGGTA ACTGCAGTTA TTACTGCATA

701 GTTCCCATAG TAACGCCAAT AGGGACTTTC CATTGACGTC AATGGGTGGA  
CAAGGGTATC ATTGCGGTTA TCCCTGAAAG GTAAGTGCAG TTACCCACCT

751 GTATTACGG TAAACTGCCA ACTTGGCAGT ACATCAAGTG TATCATATGC  
CATAAATGCC ATTTGACGGG TGAACCGTCA TGTAGTTCAC ATAGTATAACG

**FIG. 10A-1**

801 CAAGTACGCC CCCTATTGAC GTCAATGACG GTAAATGGCC CGCCTGGCAT  
 GTTCATGCAG GGGATAACTG CAGTTACTGC CATTACCGG CGGGACCGTA  
  
 851 TATGCCAGT ACATGACCTT ATGGGACTTT CCTACTTGGC AGTACATCTA  
 ATACGGGTCA TGTACTGGAA TACCCTGAAA GGATGAACCG TCATGTAGAT  
  
 901 CGTATTAGTC ATCGCTATTA CCATGGTGAT GCGGTTTGG CAGTACATCA  
 GCATAATCAG TAGCGATAAT GGTACCACTA CGCCAAAACC GTCATGTAGT  
  
 951 ATGGCGTGG ATAGCGGTTT GACTCACGGG GATTCCAAG TCTCCACCCC  
 TACCCGCACC TATGCCAAA CTGAGTGCCTT CTAAAGGTT AGAGGTGGGG  
  
 1001 ATTGACGTCA ATGGGAGTTT GTTTGGCAC CAAAATCAAC GGGACTTTCC  
 TAACTGCAGT TACCCTCAAA CAAAACCGTG GTTTAGTTG CCCTGAAAGG  
  
 1051 AAAATGTCGT AACAACTCCG CCCCATTGAC GCAAATGGC GGTAGGCGTG  
 TTTTACAGCA TTGTTGAGGC GGGTAACCG CGTTTACCCG CCATCCGCAC  
  
 1101 TACGGTGGGA GGTCTATATA AGCAGAGCTC GTTTAGTGAA CCGTCAGATC  
 ATGCCACCCCT CCAGATATAT TCGTCTCGAG CAAATCACTT GGCAGTCTAG  
  
 1151 GCCTGGAGAC GCCATCCACG CTGTTTGAC CTCCATAGAA GACACCGGGA  
 CGGACCTCTG CGGTAGGTGC GACAAAACCG GAGGTATCTT CTGTGGCCCT  
  
 1201 CCGATCCAGC CTCCGCGGCC GGGAACGGTG CATTGGAACG CGGATTCCCC  
 GGCTAGGTG GAGGCGCCGG CCCTTGCCAC GTAACCTTGC GCCTAAGGGG  
  
 1251 GTGCCAAGAG TGAGATCTAC CATGGGTGCT AGGGCTCTG TGCTGTCTGG  
 CACGGTTCTC ACTCTAGATG GTACCCACGA TCCCGAAGAC ACGACAGACC  
  
 1301 TGGTGAGCTG GACAAGTGGG AGAAGATCAG GCTGAGGCCT GGTGGCAAGA  
 ACCACTCGAC CTGTTCACCC TCTTCTAGTC CGACTCCGGA CCACCGTTCT  
  
 1351 AGAAGTACAA GCTAAAGCAC ATTGTGTGGG CCTCCAGGGA GCTGGAGAGG  
 TCTTCATGTT CGATTTCGTG TAACACACCC GGAGGTCCCT CGACCTCTCC  
  
 1401 TTTGCTGTGA ACCCTGGCCT GCTGGAGACC TCTGAGGGGT GCAGGCAGAT  
 AAACGACACT TGGGACCGGA CGACCTCTGG AGACTCCCCA CGTCCGTCTA  
  
 1451 CCTGGGCCAG CTCCAGCCCT CCCTGCAAAC AGGCTCTGAG GAGCTGAGGT  
 GGACCCGGTC GAGGTCGGGA GGGACGTTTG TCCGAGACTC CTCGACTCCA  
  
 1501 CCCTGTACAA CACAGTGGCT ACCCTGTACT GTGTGCACCA GAAGATTGAT  
 GGGACATGTT GTGTACCGA TGGGACATGA CACACGTGGT CTTCTAACTA  
  
 1551 GTGAAGGACA CCAAGGAGGC CCTGGAGAAG ATTGAGGAGG AGCAGAACAA  
 CACTTCCTGT GGTTCCCTCCG GGACCTCTTC TAACTCCTCC TCGTCTTGT

FIG. 10A-2

1601 GTCCAAGAAG AAGGCCAGC AGGCTGCTGC TGGCACAGGC AACTCCAGCC  
 CAGGTTCTTC TTCCGGGTG TCCGACGACG ACCGTGTCCG TTGAGGTCGG  
  
 1651 AGGTGTCCC AACTACCCC ATTGTGCAGA ACCTCCAGGG CCAGATGGTG  
 TCCACAGGGT CTTGATGGGG TAACACGTCT TGGAGGTCCC GGTCTACCAC  
  
 1701 CACCAGGCCA TCTCCCCCG GACCCTGAAT GCCTGGGTGA AGGTGGTGGA  
 GTGGTCCGGT AGAGGGGGGC CTGGGACTTA CGGACCCACT TCCACCACCT  
  
 1751 GGAGAAGGCC TTCTCCCCTG AGGTGATCCC CATGTTCTCT GCCCTGTCTG  
 CCTCTTCCGG AAGAGGGGAC TCCACTAGGG GTACAAGAGA CGGGACAGAC  
  
 1801 AGGGTGCCAC CCCCCAGGAC CTGAACACCA TGCTGAACAC AGTGGGGGGC  
 TCCCACGGTG GGGGGTCCTG GACTTGTGGT ACGACTTGTG TCACCCCCCG  
  
 1851 CATCAGGCTG CCATGCAGAT GCTGAAGGAG ACCATCAATG AGGAGGCTGC  
 GTAGTCCGAC GGTACGTCTA CGACTTCCTC TGGTAGTTAC TCCTCCGACG  
  
 1901 TGAGTGGGAC AGGCTGCATC CTGTGCACGC TGGCCCCATT GCCCCCGGCC  
 ACTCACCCCTG TCCGACGTAG GACACGTGCG ACCGGGGTAA CGGGGGCCGG  
  
 1951 AGATGAGGGA GCCCAGGGGC TCTGACATTG CTGGCACCAC CTCCACCCCTC  
 TCTACTCCCT CGGGTCCCCG AGACTGTAAC GACCGTGGTG GAGGTGGGAG  
  
 2001 CAGGAGCAGA TTGGCTGGAT GACCAACAAC CCCCCCATCC CTGTGGGGGA  
 GTCCTCGTCT AACCGACCTA CTGGTTGTTG GGGGGTAGG GACACCCCT  
  
 2051 AATCTACAAG AGGTGGATCA TCCTGGGCCT GAACAAGATT GTGAGGATGT  
 TTAGATGTTC TCCACCTAGT AGGACCCGGA CTTGTTCTAA CACTCCTACA  
  
 2101 ACTCCCCCAC CTCCATCCTG GACATCAGGC AGGGCCCCAA GGAGCCCTTC  
 TGAGGGGGTG GAGGTAGGAC CTGTAGTCCG TCCCGGGGTT CCTCGGGAAAG  
  
 2151 AGGGACTATG TGGACAGGTT CTACAAGACC CTGAGGGCTG AGCAGGCCTC  
 TCCCTGATAC ACCTGTCCAA GATGTTCTGG GACTCCGAC TCGTCCGGAG  
  
 2201 CCAGGAGGTG AAGAACTGGA TGACAGAGAC CCTGCTGGTG CAGAATGCCA  
 GGTCCCTCCAC TTCTTGACCT ACTGTCTCTG GGACGACCAC GTCTTACGGT  
  
 2251 ACCCTGACTG CAAGACCATC CTGAAGGCC C TGGGCCCTGC TGCCACCCCTG  
 TGGGACTGAC GTTCTGGTAG GACTTCCGGG ACCCGGGACG ACGGTGGGAC  
  
 2301 GAGGAGATGA TGACAGCCTG CCAGGGGGTG GGGGGCCCTG GTCACAAGGC  
 CTCCTCTACT ACTGTCGGAC GGTCCCCAC CCCCCGGGAC CAGTGTCCG  
  
 2351 CAGGGTGCTG GCTGAGGCCA TGTCCCAGGT GACCAACTCC GCCACCATCA  
 GTCCCACGAC CGACTCCGGT ACAGGGTCCA CTGGTTGAGG CGGTGGTAGT

FIG. 10A-3

2401 TGATGCAGAG GGGCAACTTC AGGAACCAGA GGAAGACAGT GAAGTGCTTC  
 ACTACGTCTC CCCGTTGAAG TCCTTGGTCT CCTTCTGTCA CTTCACGAAG  
  
 2451 AACTGTGGCA AGGTGGGCCA CATTGCCAAG AACTGTAGGG CCCCCAGGAA  
 TTGACACCGT TCCACCCGGT GTAACGGTTC TTGACATCCC GGGGGTCCTT  
  
 2501 GAAGGGCTGC TGGAAGTGTG GCAAGGAGGG CCACCAGATG AAGGACTGCA  
 CTTCCCGACG ACCTTCACAC CGTTCCCTCCC GGTGGTCTAC TTCCTGACGT  
  
 2551 ATGAGAGGCA GGCCAACTTC CTGGGCAAAA TCTGGCCCTC CCACAAGGGC  
 TACTCTCCGT CCGGTTGAAG GACCCGTTT AGACCGGGAG GGTGTTCCCG  
  
 2601 AGGCCTGGCA ACTTCCTCCA GTCCAGGCCT GAGCCCACAG CCCCTCCCAG  
 TCCGGACCGT TGAAGGAGGT CAGGTCCGGA CTCGGGTGTC GGGGAGGGCT  
  
 2651 GGAGTCCTTC AGGTTGGGG AGGAGAACAG CACCCCCAGC CAGAACGCAGG  
 CCTCAGGAAG TCCAAACCCC TCCTCTTCTG GTGGGGGTGCG GTCTTCGTCC  
  
 2701 AGCCCATTGA CAAGGAGCTG TACCCCCCTGG CCTCCCTGAG GTCCCTGTTT  
 TCGGGTAACT GTTCCCTCGAC ATGGGGGACC GGAGGGACTC CAGGGACAAA  
  
 2751 GGCAACGACC CCTCCCTCCCA GTAAAATAAA GCCCGGGCAG ATCTGCTGTG  
 CCGTTGCTGG GGAGGAGGGT CATTATTT CGGGCCCGTC TAGACGACAC  
  
 2801 CCTTCTAGTT GCCAGCCATC TGTTGTTGC CCCTCCCCCG TGCCTTCCTT  
 GGAAGATCAA CGGTGGTAG ACAACAAACG GGGAGGGGGC ACGGAAGGAA  
  
 2851 GACCCTGGAA GGTGCCACTC CCACTGTCCT TTCCTAATAA AATGAGGAAA  
 CTGGGACCTT CCACGGTGAG GGTGACAGGA AAGGATTATT TTACTCCTTT  
  
 2901 TTGCATCGCA TTGTCTGAGT AGGTGTCATT CTATTCTGGG GGGTGGGGTG  
 AACGTAGCGT AACAGACTCA TCCACAGTAA GATAAGACCC CCCACCCAC  
  
 2951 GGGCAGGACA GCAAGGGGGA GGATTGGAA GACAATAGCA GGCATGCTGG  
 CCCGTCCCTGT CGTTCCCCCT CCTAACCCCTT CTGTTATCGT CCGTACGACC  
  
 3001 GGATGCGGTG GGCTCTATGG CCGATCGGCG CGCCGTACTG AAATGTGTGG  
 CCTACGCCAC CCGAGATAAC GGCTAGCCGC GCGGCATGAC TTTACACACC  
  
 3051 GCGTGGCTTA AGGGTGGAA AGAATATATA AGGTGGGGGT CTTATGTAGT  
 CGCACCGAAT TCCCACCCCTT TCTTATATAT TCCACCCCCA GAATACATCA  
  
 3101 TTTGTATCTG TTTTGAGCA GCGGCCGCG CCATGAGCAC CAACTCGTTT  
 AAACATAGAC AAAACGTGCGT CGGCGGGCGC GGTACTCGTG GTTGAGCAAA  
  
 3151 GATGGAAGCA TTGTGAGCTC ATATTTGACA ACGCGCATGC CCCCATGGGC  
 CTACCTTCGT AACACTCGAG TATAAACTGT TGCGCGTACG GGGGTACCCG

FIG. 10A-4

3201 CGGGGTGCGT CAGAATGTGA TGGGCTCCAG CATTGATGGT CGCCCCGTCC  
 GCCCCCACGCA GTCTTACACT ACCCGAGGTC GTAACTACCA GCGGGGCAGG  
  
 3251 TGCCCGCAAA CTCTACTACC TTGACCTACG AGACCGTGTC TGGAACGCCG  
 ACGGGCAGTT GAGATGATGG AACTGGATGC TCTGGCACAG ACCTTGCAGC  
  
 3301 TTGGAGACTG CAGCCTCCGC CGCCGCTTCA GCCGCTGCAG CCACCGCCCG  
 AACCTCTGAC GTCGGAGGCG GCGGCGAAGT CGGCGACGTC GGTGGCGGGC  
  
 3351 CGGGATTGTG ACTGACTTTG CTTTCCTGAG CCCGCTTGCA AACAGTGCAG  
 GCCCTAACAC TGACTGAAAC GAAAGGACTC GGGCGAACGT TTGTCACGTC  
  
 3401 CTTCCCGTTC ATCCGCCCGC GATGACAAGT TGACGGCTCT TTTGGCACAA  
 GAAGGGCAAG TAGGCGGGCG CTACTGTTCA ACTGCCGAGA AAACCGTGTT  
  
 3451 TTGGATTCTT TGACCCGGGA ACTTAATGTC GTTCTCAGC AGCTGTTGGA  
 AACCTAACGAA ACTGGGCCCT TGAATTACAG CAAAGAGTCG TCGACAACCT  
  
 3501 TCTGCGCCAG CAGGTTTCTG CCCTGAAGGC TTCCTCCCGT CCCAATGCGG  
 AGACGCGGTC GTCCAAAGAC GGGACTTCCG AAGGAGGGGA GGGTTACGCC  
  
 3551 TTTAAAACAT AAATAAAAAAA CCAGACTCTG TTTGGATTTG GATCAAGCAA  
 AAATTTGTA TTTATTTTTT GGTCTGAGAC AAACCTAAAC CTAGTTCGTT  
  
 3601 GTGTCTTGCT GTCTTATTT AGGGGTTTG CGCGCGCGGT AGGCCCGGG  
 CACAGAACGA CAGAAATAAA TCCCCAAAC GCGCGCGCCA TCCGGGCCCT  
  
 3651 CCAGCGGTCT CGGTCGTTGA GGGTCCTGTG TATTTTTTCC AGGACGTGGT  
 GGTGCCAGA GCCAGCAACT CCCAGGACAC ATAAAAAAGG TCCTGCACCA  
  
 3701 AAAGGTGACT CTGGATGTTG AGATACATGG GCATAAGCCC GTCTCTGGGG  
 TTTCCACTGA GACCTACAAG TCTATGTACC CGTATTGCGG CAGAGACCCC  
  
 3751 TGGAGGTAGC ACCACTGCAG AGCTTCATGC TGCGGGGTGG TGTTGTAGAT  
 ACCTCCATCG TGGTGACGTC TCGAAGTACG ACGCCACCAC ACAACATCTA  
  
 3801 GATCCAGTCG TAGCAGGAGC GCTGGCGTG GTGCCTAAAA ATGTCTTTCA  
 CTAGGTCAGC ATCGTCCTCG CGACCCGCAC CACGGATTTT TACAGAAAGT  
  
 3851 GTAGCAAGCT GATTGCCAGG GGCAGGCCCT TGGTGTAAAGT GTTTACAAAG  
 CATCGTTCGA CTAACGGTCC CGGTCCGGGA ACCACATTCA CAAATGTTTC  
  
 3901 CGGTTAAGCT GGGATGGGTG CATACTGGGG GATATGAGAT GCATCTTGG  
 GCCAATTGCA CCCTACCCAC GTATGCACCC CTATACTCTA CGTAGAACCT  
  
 3951 CTGTATTTT AGGTTGGCTA TGTTCCAGC CATATCCCTC CGGGGATTCA  
 GACATAAAAAA TCCAACCGAT ACAAGGGTCG GTATAGGGAG GCCCCTAAGT

FIG. 10A-5

4001 TGTTGTGCAG AACCAACCAGC ACAGTGTATC CGGTGCACCTT GGGAAATTG  
ACAACACGTC TTGGTGGTCG TGTCACATAG GCCACGTGAA CCCTTAAAC

4051 TCATGTAGCT TAGAAGGAAA TGC GTGGAAG AACTTGGAGA CGCCCTTGTG  
AGTACATCGA ATCTTCCTT ACGCACCTTC TTGAACCTCT GC GGGAACAC

4101 ACCTCCAAGA TTTTCCATGC ATT CGTCCAT AATGATGGCA ATGGGCCAC  
TGGAGGTTCT AAAAGGTACG TAAGCAGGTA TTACTACCGT TACCCGGGTG

4151 GGGCGGCCGGC CTGGGCGAAG ATATTCCTGG GATCACTAAC GTCATAGTTG  
CCCGCCGCCG GACCCGCTTC TATAAAGACC CTAGTGATTG CAGTATCAAC

4201 TGTTCCAGGA TGAGATCGTC ATAGGCCATT TTTACAAAGC GCGGGCGGAG  
ACAAGGTCTT ACTCTAGCAG TATCCGGTAA AAATGTTCG CGCCCGCCTC

4251 GGTGCCAGAC TGC GGTTATAA TGGTTCCATC CGGCCAGGG GCGTAGTTAC  
CCACGGTCTG ACGCCATATT ACCAAGGTAG GCCGGGTCCC CGCATCAATG

4301 CCTCACAGAT TTGCATTTCC CACGCTTGA GTTCAGATGG GGGGATCATG  
GGAGTGTCTA AACGTAAAGG GTGCGAAACT CAAGTCTACC CCCCTAGTAC

4351 TCTACCTGCG GGGCGATGAA GAAAACGGTT TCCGGGGTAG GGGAGATCAG  
AGATGGACGC CCCGCTACTT CTTTGCCAA AGGCCCCATC CCCTCTAGTC

4401 CTGGGAAGAA AGCAGGTTCC TGAGCAGCTG CGACTTACCG CAGCCGGTGG  
GACCCTTCTT TCGTCCAAGG ACTCGTCGAC GCTGAATGGC GTCGGCCACC

4451 GCCCCTAAAT CACACCTATT ACCGGCTGCA ACTGGTAGTT AAGAGAGCTG  
CGGGCATTAA GTGTGGATAA TGGCCGACGT TGACCATCAA TTCTCTCGAC

4501 CAGCTGCCGT CATCCCTGAG CAGGGGGGCC ACTTCGTTAA GCATGTCCT  
GTCGACGGCA GTAGGGACTC GTCCCCCGG TGAAGCAATT CGTACAGGGA

4551 GACTCGCATG TTTTCCCTGA CCAAATCCGC CAGAAGGCGC TCGCCGCCA  
CTGAGCGTAC AAAAGGGACT GTTTAGGCG GTCTTCCCGCG AGCGGCGGGT

4601 GCGATAGCAG TTCTTGCAAG GAAGCAAAGT TTTCAACGG TTTGAGACCG  
CGCTATCGTC AAGAACGTTA CTTCGTTCA AAAAGTTGCC AAACCTCTGGC

4651 TCCGCCGTAG GCATGCTTT GAGCGTTGA CCAAGCAGTT CCAGGCGGTC  
AGGCGGCATC CGTACGAAAA CTCGCAAACG GTTCGTCAA GGTCCGCCAG

4701 CCACAGCTCG GTCACCTGCT CTACGGCATC TCGATCCAGC ATATCTCCTC  
GGTGTGAGC CAGTGGACGA GATGCCGTAG AGCTAGGTG TATAGAGGAG

4751 GTTTCGCGGG TTGGGGCGGC TTTCGCTGTA CGGCAGTAGT CGGTGCTCGT  
CAAAGCGCCC AACCCCGCCG AAAGCGACAT GCCGTCATCA GCCACGAGCA

FIG. 10A-6

4801 CCAGACGGGC CAGGGTCATG TCTTTCCACG GGCGCAGGGT CCTCGTCAGC  
 GGTCTGCCCG GTCCCAGTAC AGAAAGGTGC CGCGTCCCA GGAGCAGTCG  
  
 4851 GTAGTCTGGG TCACGGTGAA GGGGTGCGCT CCGGGCTGCG CGCTGGCCAG  
 CATCAGACCC AGTGCCACTT CCCCACGCGA GGCCCACGCG GCGACCGGTC  
  
 4901 GGTGCGCTTG AGGCTGGTCC TGCTGGTGCT GAAGCGCTGC CGGTCTTCGC  
 CCACGCGAAC TCCGACCAGG ACGACCACGA CTTCGCGACG GCCAGAACGCG  
  
 4951 CCTGCGCGTC GGCCAGGTAG CATTGACCA TGGTGTCTATA GTCCAGCCCC  
 GGACGCGCAG CGGGTCCATC GTAAACTGGT ACCACAGTAT CAGGTCGGGG  
  
 5001 TCCGCGGCGT GGCCCTTGGC GCGCAGCTTG CCCTTGGAGG AGGCGCCGCA  
 AGGCGCCGCA CGGGAAACCG CGCGTCGAAC GGGAACCTCC TCCGCGGCGT  
  
 5051 CGAGGGGCAG TGCAGACTTT TGAGGGCGTA GAGCTTGGGC GCGAGAAATA  
 GCTCCCCGTC ACGTCTGAAA ACTCCCGCAT CTCGAACCCG CGCTCTTAT  
  
 5101 CCGATTCCGG GGAGTAGGCA TCCGCGCCGC AGGCCCCGCA GACGGTCTCG  
 GGCTAAGGCC CCTCATCCGT AGGCGCGGCG TCCGGGGCGT CTGCCAGAGC  
  
 5151 CATTCCACGA GCCAGGTGAG CTCTGGCCGT TCAGGGTCAA AAACCAGGTT  
 GTAAGGTGCT CGGTCCACTC GAGACCGGCA AGCCCCAGTT TTTGGTCCAA  
  
 5201 TCCCCCATGC TTTTGATGC GTTCTTACCG TCTGGTTTCC ATGAGCCGGT  
 AGGGGGTACG AAAAACTACG CAAAGAATGG AGACCAAAGG TACTCGGCCA  
  
 5251 GTCCACGCTC GGTGACGAAA AGGCTGTCCG TGTCCCCGTA TACAGACTTG  
 CAGGTGCGAG CCACTGCTTT TCCGACAGGC ACAGGGGCAT ATGTCTGAAC  
  
 5301 AGAGGCCTGT CCTCGAGCGG TGTTCCGCGG TCCTCCTCGT ATAGAAACTC  
 TCTCCGGACA GGAGCTCGCC ACAAGGCGCC AGGAGGAGCA TATCTTGAG  
  
 5351 GGACCACTCT GAGACAAAGG CTCGCGTCCA GGCCAGCACG AAGGAGGCTA  
 CCTGGTGAGA CTCTGTTCC GAGCGCAGGT CGGGTCGTGC TTCCTCCGAT  
  
 5401 AGTGGGAGGG GTAGCGGTGCG TTGTCCACTA GGGGGTCCAC TCGCTCCAGG  
 TCACCCCTCCC CATCGCCAGC AACAGGTGAT CCCCCAGGTG AGCGAGGTCC  
  
 5451 GTGTGAAGAC ACATGTCGCC CTCTCGGCA TCAAGGAAGG TGATTGGTTT  
 CACACTTCTG TGTACAGCGG GAGAAGCCGT AGTTCTTCC ACTAACCAAA  
  
 5501 GTAGGTGTAG GCCACGTGAC CGGGTGTTC TGAAGGGGGG CTATAAAAGG  
 CATCCACATC CGGTGCACTG GCCCACAAGG ACTTCCCCCCC GATATTTCC  
  
 5551 GGGTGGGGGC GCGTTCGTCC TCACTCTCTT CCGCATCGCT GTCTGCGAGG  
 CCCACCCCCG CGCAAGCAGG AGTGAGAGAA GGCAGTCGA CAGACGCTCC

FIG. 10A-7

5601 GCCAGCTGTT GGGGTGAGTA CTCCCTCTGA AAAGCAGGCA TGACTTCTGC  
CGGTGACAA CCCCACAT GAGGGAGACT TTTGCCCGT ACTGAAGACG

5651 GCTAAGATTG TCAGTTCCA AAAACGAGGA GGATTTGATA TTCACCTGGC  
CGATTCTAAC AGTCAAAGGT TTTGCTCCT CCTAAACTAT AAGTGGACCG

5701 CCGCGGTGAT GCCTTGAGG GTGGCCGCAT CCATCTGGTC AGAAAAGACA  
GGCGCCACTA CGGAAACTCC CACCGCGTA GGTAGACCAG TCTTTCTGT

5751 ATCTTTTGT TGTCAAGCTT GGTGGCAAAC GACCCGTAGA GGGCGTTGGA  
TAGAAAAACA ACAGTTCGAA CCACCGTTG CTGGGCATCT CCCGCAACCT

5801 CAGCAACTTG GCGATGGAGC GCAGGGTTG GTTTTGTGCG CGATCGGC  
GTCGTTGAAC CGCTACCTCG CGTCCCAAAC CAAAAACAGC GCTAGCCGCG

5851 GCTCCTTGGC CGCGATGTTT AGCTGCACGT ATTGCACGC AACGCACCGC  
CGAGGAACCG GCGCTACAAA TCGACGTGCA TAAGCGCGCG TTGCGTGGCG

5901 CATTGGGAA AGACGGTGGT GCGCTCGTCG GGCACCAGGT GCACGCGCA  
GTAAGCCCTT TCTGCCACCA CGCGAGCAGC CCGTGGTCCA CGTGCACCGT

5951 ACCGCGGTTG TGCAGGGTGA CAAGGTCAAC GCTGGTGGCT ACCTCTCCGC  
TGGCGCCAAC ACGTCCCACG GTTCCAGTTG CGACCACCGA TGGAGAGGCG

6001 GTAGGCGCTC GTTGGTCCAG CAGAGGCGGC CGCCCTGCG CGAGCAGAAT  
CATCCCGAG CAACCAGGTC GTCTCCGCCG CGGGAACGC GCTCGTCTTA

6051 GGCGGTAGGG GGTCTAGCTG CGTCTCGTCC GGGGGGTCTG CGTCCACGGT  
CCGCCATCCC CCAGATCGAC GCAGAGCAGG CCCCCCAGAC GCAGGTGCCA

6101 AAAGACCCCG GGCAGCAGGC GCGCTCGAA GTAGTCTATC TTGCATCCTT  
TTTCTGGGGC CCGTCGTCCG CGCGCAGCTT CATCAGATAG AACGTAGGAA

6151 GCAAGTCTAG CGCCTGCTGC CATGCGCGGG CGGCAAGCGC GCGCTCGTAT  
CGTTCAGATC GCAGACGACG GTACGCGCCC GCCGTTGCGC CGCGAGCATA

6201 GGGTTGAGTG GGGGACCCCA TGGCATGGGG TGGGTGAGCG CGGAGGCGTA  
CCCAACTCAC CCCCTGGGGT ACCGTACCCC ACCCACTCGC GCCTCCGCAT

6251 CATGCCGCAA ATGTCGTAAA CGTAGAGGGG CTCTCTGAGT ATTCCAAGAT  
GTACGGCGTT TACAGCATT GCATCTCCCC GAGAGACTCA TAAGGTTCTA

6301 ATGTAGGGTA GCATCTTCCA CCGCGGATGC TGGCGCGCAC GTAATCGTAT  
TACATCCCAT CGTAGAAGGT GGCGCCTACG ACCGCGCGTG CATTAGCATA

6351 AGTTCGTGCAG AGGGAGCGAG GAGGTCGGGA CCGAGGTTGC TACGGGCGGG  
TCAAGCACGC TCCCTCGCTC CTCCAGCCCT GGCTCCAACG ATGCCCGCCC

FIG. 10A-8

6401 CTGCTCTGCT CGGAAGACTA TCTGCCTGAA GATGGCATGT GAGTTGGATG  
GACGAGACGA GCCTTCTGAT AGACGGACTT CTACCGTACA CTCAACCTAC

6451 ATATGGTTGG ACGCTGGAAG ACGTTGAAGC TGGCGTCTGT GAGACCTACC  
TATAACCAACC TGCGACCTTC TGCAACTTCG ACCGCAGACA CTCTGGATGG

6501 GCGTCACGCA CGAAGGAGGC GTAGGAGTCG CGCAGCTTGT TGACCAGCTC  
CGCAGTGCCTG GCTTCCTCCG CATCCTCAGC GCGTCGAACA ACTGGTCGAG

6551 GGCGGTGACC TGCACGTCTA GGGCGCAGTA GTCCAGGGTT TCCTTGATGA  
CCGCCACTGG ACGTGCAGAT CCCGCGTCAT CAGGTCCCAA AGGAACTACT

6601 TGTCTACTT ATCCTGTCCC TTTTTTTTCC ACAGCTCGCG GTTGAGGACA  
ACAGTATGAA TAGGACAGGG AAAAAAAAGG TGTCGAGCGC CAACTCCTGT

6651 AACTCTTCGC GGTCTTCCA GTACTCTTGG ATCGGAAACC CGTCGGCCTC  
TTGAGAACGCG CCAGAAAGGT CATGAGAACCC TAGCCTTGG GCAGCCGGAG

6701 CGAACGGTAA GAGCCTAGCA TGTAGAACTG GTTGACGGCC TGGTAGGCAGC  
GCTTGCCATT CTCGGATCGT ACATCTTGAC CAACTGCCGG ACCATCCCGC

6751 AGCATCCCTT TTCTACGGGT AGCGCGTATG CCTGCGCGGC CTTCCGGAGC  
TCGTAGGGAA AAGATGCCCA TCGCGCATAAC GGACGCGCCG GAAGGCCTCG

6801 GAGGTGTGGG TGAGCGAAA GGTGTCCCTG ACCATGACTT TGAGGTACTG  
CTCCACACCC ACTCGCGTTT CCACAGGGAC TGGTACTGAA ACTCCATGAC

6851 GTATTTGAAG TCAGTGTCGT CGCATCCGCC CTGCTCCAG AGCAAAAAGT  
CATAAACTTC AGTCACAGCA GCGTAGGGCGG GACGAGGGTC TCGTTTTCA

6901 CCGTGCCTT TTTGGAACGC GGATTTGGCA GGGCGAAGGT GACATCGTTG  
GGCACCGCAA AAACCTTGCG CCTAAACCGT CCCGCTTCCA CTGTAGCAAC

6951 AAGAGTATCT TTCCCGCGCG AGGCATAAAG TTGCGTGTGA TGCGGAAGGG  
TTCTCATAGA AAGGGCGCGC TCCGTATTC AACGCACACT ACGCCTTCCC

7001 TCCCCGCACC TCGGAACGGT TGTAAATTAC CTGGGGCGCG AGCACGATCT  
AGGGCCGTGG AGCCTGCCA ACAATTAAATG GACCCGCCGC TCGTGCTAGA

7051 CGTCAAAGCC GTTGATGTTG TGGCCCACAA TGTAAAGTTC CAAGAAGCGC  
GCAGTTTCGG CAACTACAAC ACCGGGTGTT ACATTTCAAG GTTCTTCGCG

7101 GGGATGCCCT TGATGGAAGG CAATTTTTA AGTTCTCGT AGGTGAGCTC  
CCCTACGGGA ACTACCTTCC GTTAAAAAAT TCAAGGAGCA TCCACTCGAG

7151 TTCAGGGGAG CTGAGCCCGT GCTCTGAAAG GGCCCAGTCT GCAAGATGAG  
AAGTCCCCTC GACTCGGGCA CGAGACTTTC CGGGGTCAAGA CGTTCTACTC

FIG. 10A-9

7201 GGTTGGAAGC GACGAATGAG CTCCACAGGT CACGGGCCAT TAGCATTTGC  
 CCAACCTTCG CTGCTTACTC GAGGTGTCCA GTGCCCGTA ATCGTAAACG  
  
 7251 AGGTGGTCGC GAAAGGTCTT AAACCTGGCGA CCTATGGCCA TTTTTCTGG  
 TCCACCAGCG CTTTCCAGGA TTTGACCGCT GGATACCGGT AAAAAAGACC  
  
 7301 GGTGATGCAG TAGAAGGTAA GCGGGTCTTG TTCCCAGCGG TCCCATCCAA  
 CCACTACGTC ATCTTCCATT CGCCCAGAAC AAGGGTCGCC AGGGTAGGTT  
  
 7351 GGTCGCGGC TAGGTCTCGC GCAGCAGTCA CTAGAGGCTC ATCTCCGCG  
 CCAAGCGCCG ATCCAGAGCG CGCCGTCAGT GATCTCCGAG TAGAGGCGGC  
  
 7401 AACATTCAATGA CCAGCATGAA GGGCACGAGC TGCTTCCCAA AGGCCCCCAT  
 TTGAAGTACT GGTCGTACTT CCCGTGCTCG ACGAAGGGTT TCCGGGGGTA  
  
 7451 CCAAGTATAAG GTCTCTACAT CGTAGGTGAC AAAGAGACGC TCGGTGCGAG  
 GGTTCATATC CAGAGATGTA GCATCCACTG TTTCTCTGCG AGCCACGCTC  
  
 7501 GATGCGAGCC GATCGGGAAAG AACTGGATCT CCCGCCACCA ATTGGAGGAG  
 CTACGCTCGG CTAGCCCTTC TTGACCTAGA GGGCGGTGGT TAACCTCCTC  
  
 7551 TGGCTATTGA TGTGGTGAAA GTAGAAGTCC CTGCGACGGG CCGAACACTC  
 ACCGATAACT ACACCACTTT CATCTTCAGG GACGCTGCC CGCTTGTGAG  
  
 7601 GTGCTGGCTT TTGTAAAAAC GTGCGCAGTA CTGGCAGCGG TGCACGGGCT  
 CACGACCGAA AACATTTTG CACGCGTCAT GACCGTCGCC ACGTGCCCAG  
  
 7651 GTACATCCTG CACGAGGTTG ACCTGACGAC CGCGCACAAAG GAAGCAGAGT  
 CATGTAGGAC GTGCTCCAAC TGGACTGCTG GCGCGTGTTC CTTCGTCTCA  
  
 7701 GGGAAATTGA GCCCCTCGCC TGGCGGGTTT GGCTGGTGGT CTTCTACTTC  
 CCCTTAAACT CGGGGAGCGG ACCGCCAAA CCGACCACCA GAAGATGAAG  
  
 7751 GGCTGCTTGT CCTTGACCGT CTGGCTGCTC GAGGGGAGTT ACGGTGGATC  
 CCGACGAACA GGAACCTGGCA GACCGACGAG CTCCCCTCAA TGCCACCTAG  
  
 7801 GGACCACCAAC GCCGCGCGAG CCCAAAGTCC AGATGTCCGC GCGCGGGGGT  
 CCTGGTGGTG CGGCGCGCTC GGGTTTCAGG TCTACAGGCG CGCGCCGCCA  
  
 7851 CGGAGCTTGA TGACAACATC GCGCAGATGG GAGCTGTCCA TGGTCTGGAG  
 GCCTCGAACT ACTGTTGTAG CGCGTCTACC CTCGACAGGT ACCAGACCTC  
  
 7901 CTCCCCGGC GTCAGGTCAAG GCAGGGAGCTC CTGCAGGTTT ACCTCGCATA  
 GAGGGCGCCG CAGTCCAGTC CGCCCTCGAG GACGTCCAAA TGGAGCGTAT  
  
 7951 GACGGGTCAG GGCAGGGCT AGATCCAGGT GATAACCTAAT TTCCAGGGGC  
 CTGCCCAGTC CCGCGCCCCGA TCTAGGTCCA CTATGGATTA AAGGTCCCCG

FIG. 10A-10

8001 TGGTTGGTGG CGGCGTCGAT GGCTTGCAAG AGGCCGCATC CCCGCGGCGC  
 ACCAACCAACC GCGCAGCTA CCGAACGTT TCCTGGCTAG GGGCGCCGCG  
  
 8051 GACTACGGTA CCGCGCGCG GGCGGTGGC CGCGGGGTG TCCTGGATG  
 CTGATGCCAT GGCGCGCCGC CCGCCACCCG GCGCCCCCAC AGAACCTAC  
  
 8101 ATGCATCTAA AAGCGGTGAC GCAGGGGAGC CCCCAGGAGT AGGGGGGGCT  
 TACGTAGATT TTGCGCACTG CGCCCGCTCG GGGGCCTCCA TCCCCCCCAGA  
  
 8151 CCGGACCCGC CGGGAGAGGG GGCAGGGGCA CGTCGGCGCC GCGCGCGGGC  
 GGCCTGGCG GCCCTCTCCC CCGTCCCCGT GCAGCCGCGG CGCGCGCCCG  
  
 8201 AGGAGCTGGT GCTGCGCGCG TAGGTTGCTG GCGAACGCGA CGACGCGCG  
 TCCTCGACCA CGACGCGCGC ATCCAACGAC CGCTTGCCT GCTGCGCCGC  
  
 8251 GTTGATCTCC TGAATCTGGC GCCTCTGCGT GAAGACGACG GGCCCGGTGA  
 CAACTAGAGG ACTTAGACCG CGGAGACGCA CTTCTGCTGC CGGGGCCACT  
  
 8301 GCTTGAACCT GAAAGAGAGT TCGACAGAAT CAATTCGGT GTCGTTGACG  
 CGAACTTGGA CTTTCTCTCA AGCTGTCTTA GTTAAAGCCA CAGCAACTGC  
  
 8351 GCGGCCTGGC GCAAAATCTC CTGCACGTCT CCTGAGTTGT CTTGATAGGC  
 CGCCGGACCG CGTTTAGAG GACGTGCAGA GGACTCAACA GAACTATCCG  
  
 8401 GATCTCGGCC ATGAACGTCT CGATCTCTTC CTCCTGGAGA TCTCCGCGTC  
 CTAGAGCCGG TACTTGACGA GCTAGAGAAG GAGGACCTCT AGAGGCGCAG  
  
 8451 CGGCTCGCTC CACGGTGGCG GCGAGGTCGT TGGAAATGCG GGCCATGAGC  
 GCCGAGCGAG GTGCCACCGC CGCTCCAGCA ACCTTTACGC CGGGTACTCG  
  
 8501 TGCGAGAAGG CGTTGAGGCC TCCCTCGTTC CAGACGCGGC TGTAGACCAC  
 ACGCTCTTCC GCAACTCCGG AGGGAGCAAG GTCTGGCGCG ACATCTGGTG  
  
 8551 GCCCCCTTCG GCATCGCGGG CGCGCATGAC CACCTGCGCG AGATTGAGCT  
 CGGGGGAAGC CGTAGCGCCC GCGCGTACTG GTGGACGCGC TCTAACTCGA  
  
 8601 CCACGTGCCG GGCAGAAGACG GCGTAGTTTC GCAGGCGCTG AAAGAGGTAG  
 GGTGCACGGC CCGCTCTGC CGCATCAAAG CGTCCGCGAC TTTCTCCATC  
  
 8651 TTGAGGGTGG TGGCGGTGTG TTCTGCCACG AAGAAGTACA TAACCCAGCG  
 AACTCCCACC ACCGCCACAC AAGACGGTGC TTCTTCATGT ATTGGGTCGC  
  
 8701 TCGAACGTG GATTGTTGA TATCCCCAA GGCCTCAAGG CGCTCCATGG  
 AGCGTTGCAC CTAAGCAACT ATAGGGGTT CGGGAGTTCC GCGAGGTACC  
  
 8751 CCTCGTAGAA GTCCACGGCG AAGTTGAAAA ACTGGGAGTT GCGCGCCGAC  
 GGAGCATCTT CAGGTGCCGC TTCAACTTT TGACCCCTCAA CGCGCGGCTG

FIG. 10A-11

8801 ACGGTTAACT CCTCCTCCAG AAGACGGATG AGCTCGGCAG CAGTGTGCG  
 TGCCAATTGA GGAGGAGGTC TTCTGCCTAC TCGAGCCGCT GTCACAGCGC  
  
 8851 CACCTCGCGC TCAAAGGCTA CAGGGGCCTC TTCTTCTTCT TCAATTCCT  
 GTGGAGCGCG AGTTTCCGAT GTCCCCGGAG AAGAAGAAGA AGTTAGAGGA  
  
 8901 CTTCCATAAG GGCCTCCCCT TCTTCTTCTT CTGGCGGCAG TGGGGGAGGG  
 GAAGGTATTC CCGGAGGGGA AGAAGAAGAA GACCGCCGCG ACCCCCTCCC  
  
 8951 GGGACACGGC GGCGACGACG GCGCACCGGG AGGCGGTCGA CAAAGCGCTC  
 CCCTGTGCCG CCGCTGCTGC CGCGTGGCCC TCCGCCAGCT GTTCGCGAG  
  
 9001 GATCATCTCC CCGCGCGCAG GCAGCATGGT CTCGGTGACG GCGCGGCCGT  
 CTAGTAGAGG GGCGCCGCTG CCGCGTACCA GAGCCACTGC CGCGCCGGCA  
  
 9051 TCTCGCGGGG GCGCAGTTGG AAGACGCCGC CCGTCATGTC CCGGTTATGG  
 AGAGCGCCCC CGCGTCAACC TTCTGCAGCG GGCAGTACAG GGCAATACC  
  
 9101 GTTGGCGGGG GGCTGCCATG CGGCAGGGAT ACGGCGCTAA CGATGCATCT  
 CAACCGCCCC CCGACGGTAC GCGTCCCTA TGCCGCGATT GCTACGTAGA  
  
 9151 CAACAATTGT TGTGTAGGTA CTCCGCCGCC GAGGGACCTG AGCGAGTCCG  
 GTTGTAAACA ACACATCCAT GAGGCGGCCG CTCCCTGGAC TCGCTCAGGC  
  
 9201 CATCGACCGG ATCGGAAAAC CTCTCGAGAA AGCGTCTAA CCAGTCACAG  
 GTAGCTGGCC TAGCCTTTG GAGAGCTCTT TCCGCAGATT GGTCAGTGT  
  
 9251 TCGCAAGGTA GGCTGAGCAC CGTGGCGGGC GGCAGCGGGC GCGGTCGGG  
 AGCGTTCCAT CCGACTCGTG GCACCGCCCC CGTCGCCCG CCGCCAGCCC  
  
 9301 GTTGTTCCTG GCGGAGGTGC TGCTGATGAT GTAATTAAAG TAGGCGGTCT  
 CAACAAAGAC CGCCTCCACG ACGACTACTA CATTAATTTC ATCCGCCAGA  
  
 9351 TGAGACGGCG GATGGTCGAC AGAACGACCA TGTCCCTGGG TCCGGCCTGC  
 ACTCTGCCGC CTACCAAGCTG TCTTCGTGGT ACAGGAACCC AGGCCGGACG  
  
 9401 TGAATGCGCA GGCGGTGCGC CATGCCAG GCTTCGTTT GACATCGGCG  
 ACTTACGCGT CCGCCAGCCG GTACGGGTC CGAAGCAAAA CTGTAGCCGC  
  
 9451 CAGGTCTTTG TAGTAGTCTT GCATGAGCCT TTCTACCGGC ACTTCTTCTT  
 GTCCAGAAAC ATCATCAGAA CGTACTCGGA AAGATGGCCG TGAAGAAGAA  
  
 9501 CTCCTTCCTC TTGTCTGCA TCTCTGCAT CTATCGCTGC GGCGGCGCG  
 GAGGAAGGAG AACAGGACGT AGAGAACGTA GATAGCGACG CCGCCGCCGC  
  
 9551 GAGTTGGCC GTAGGTGGCG CCCTCTTCCT CCCATGCGTG TGACCCCGAA  
 CTCAAACCGG CATCCACCGC GGGAGAAGGA GGGTACGCAC ACTGGGGCTT

FIG. 10A-12

9601 GCCCCTCATC GGCTGAAGCA GGGCTAGGTC GGCGACAACG CGCTCGGCTA  
 CGGGGAGTAG CCGACCTCGT CCCGATCCAG CCGCTGTTGC GCGAGCCGAT  
  
 9651 ATATGGCCTG CTGCACCTGC GTGAGGGTAG ACTGGAAGTC ATCCATGTCC  
 TATAACCGGAC GACGTGGACG CACTCCCATC TGACCTTCAG TAGGTACAGG  
  
 9701 ACAAAAGCGGT GGTATGCGCC CGTGTTGATG GTGTAAGTGC AGTTGGCCAT  
 TGTTTCGCCA CCATACGCGG GCACAACTAC CACATTCACG TCAACCGGTA  
  
 9751 AACGGACCAG TTAACGGTCT GGTGACCCGG CTGCGAGAGC TCGGTGTACC  
 TTGCCTGGTC AATTGCCAGA CCACTGGGCC GACGCTCTCG AGCCACATGG  
  
 9801 TGAGACGCGA GTAAGCCCTC GAGTCAAATA CGTAGTCGTT GCAAGTCCGC  
 ACTCTGCGCT CATTGGGAG CTCAGTTAT GCATCAGCAA CGTCAGGCG  
  
 9851 ACCAGGTACT GGTATCCCAC CAAAAAGTGC GGCGGCGGCT GGCGGTAGAG  
 TGGTCCATGA CCATAGGGTG GTTTTCACG CCGCCGCCGA CCGCCATCTC  
  
 9901 GGGCCAGCGT AGGGTGGCCG GGGCTCCGGG GGCGAGATCT TCCAACATAA  
 CCCGGTCGCA TCCCACCGGC CCCGAGGCC CCGCTCTAGA AGGTTGTATT  
  
 9951 GGCGATGATA TCCGTAGATG TACCTGGACA TCCAGGTGAT GCCGGCGGCG  
 CCGCTACTAT AGGCATCTAC ATGGACCTGT AGGTCCACTA CGGCCGCCGC  
  
 10001 GTGGTGGAGG CGCGCGGAAA GTCGCGGACG CGGTTCCAGA TGTTGCGCAG  
 CACCA CCTCC GCGCGCCTT CAGCGCCTGC GCCAAGGTCT ACAACCGTC  
  
 10051 CGGCAAAAG TGCTCCATGG TCGGGACGCT CTGGCCGGTC AGGCGCGCG  
 GCCGTTTTTC ACGAGGTACC AGCCCTGCGA GACCGGCCAG TCCGCGCGCG  
  
 10101 AATCGTTGAC GCTCTAGACC GTGCAAAAGG AGAGCCTGTA AGCGGGCACT  
 TTAGCAAATG CGAGATCTGG CACGTTTCC TCTCGGACAT TCGCCCGTGA  
  
 10151 CTTCCGTGGT CTGGTGGATA AATTGCAAG GGTATCATGG CGGACGACCG  
 GAAGGCACCA GACCACCTAT TTAAGCGTTC CCATAGTACC GCCTGCTGGC  
  
 10201 GGGTCGAGC CCCGTATCCG GCCGTCCGCC GTGATCCATG CGGTTACCGC  
 CCCAAGCTCG GGGCATAGGC CGGCAGGCCG CACTAGGTAC GCCAATGGCG  
  
 10251 CCGCGTGTG AACCCAGGTG TGCGACGTCA GACAACGGGG GAGTGCTCCT  
 GGCGCACAGC TTGGGTCCAC ACGCTGCAGT CTGTTGCCCG CTCACGAGGA  
  
 10301 TTTGGCTTCC TTCCAGGCAC GGCAGGCTGCT GCGCTAGCTT TTTTGGCCAC  
 AAACCGAAGG AAGGTCCCGC CCGCCGACGA CGCGATCGAA AAAACCGGTG  
  
 10351 TGGCCCGCGC CAGCGTAAGC GGTTAGGCTG GAAAGCGAAA GCATTAAGTG  
 ACCGGCGCGC GTCGCATTG CCAATCCGAC CTTTCGCTTT CGTAATTAC

FIG. 10A-13

10401 GCTCGCTCCC TGTAGCCGGA GGGTTATTT CCAAGGGTTG AGTCGCGGGA  
 CGAGCGAGGG ACATCGGCCT CCCAATAAAA GGTTCCAAC TCAGCGCCCT  
  
 10451 CCCCCGGTTC GAGTCTCGGA CCGGCCGGAC TGC GGCGAAC GGGGGTTTC  
 GGGGGCCAAG CTCAGAGCCT GGCCGGCCTG ACGCCGCTTG CCCCCAAACG  
  
 10501 CTCCCCGTCA TGCAAGACCC CGCTTGCAAA TTCCCTCCGGA AACAGGGACG  
 GAGGGGCAGT ACGTTCTGGG GCGAACGTTT AAGGAGGCCT TTGTCCCTGC  
  
 10551 AGCCCCTTTT TTGCTTTCC CAGATGCATC CGGTGCTGCG GCAGATGCGC  
 TCGGGGAAAA AACGAAAAGG GTCTACGTAG GCCACGACGC CGTCTACGCG  
  
 10601 CCCCCCTCCTC AGCAGCGGCA AGAGCAAGAG CAGCGGCAGA CATGCAGGGC  
 GGGGGAGGAG TCGTCGCCGT TCTCGTTCTC GTGCCCGTCT GTACGTCCCG  
  
 10651 ACCCTCCCCT CCTCCTACCG CGTCAGGAGG GGCGACATCC GCGGTTGACG  
 TGGGAGGGGA GGAGGATGGC GCAGTCCTCC CCGCTGTAGG CGCCAACTGC  
  
 10701 CGGCAGCGAGA TGGTGATTAC GAACCCCCGC GGCGCCGGGC CGGGCACTAC  
 GCCGTCGTCT ACCACTAATG CTTGGGGGCG CCGCGGCCCCG GGCGTGATG  
  
 10751 CTGGACTTGG AGGAGGGCGA GGGCCTGGCG CGGCTAGGAG CGCCCTCTCC  
 GACCTGAACC TCCTCCCGCT CCCGGACCGC GCCGATCCTC GCGGGAGAGG  
  
 10801 TGAGCGGCAC CCAAGGGTGC AGCTGAAGCG TGATACGCGT GAGGC GTACG  
 ACTCGCCGTG GGTTCCCACG TCGACTTCGC ACTATGCGCA CTCCGCATGC  
  
 10851 TGCCCGGGCA GAACCTGTTT CGCGACCGCG AGGGAGAGGA GCCCGAGGAG  
 ACGGCGCCGT CTTGGACAAA GCGCTGGCGC TCCCTCTCCT CGGGCTCCTC  
  
 10901 ATGCGGGATC GAAAGTTCCA CGCAGGGCGC GAGCTGCGGC ATGGCCTGAA  
 TACGCCCTAG CTTTCAAGGT GCGTCCCGCG CTCGACGCCG TACCGGACTT  
  
 10951 TCGCGAGCGG TTGCTGCGCG AGGAGGACTT TGAGCCCGAC GCGCGAACCG  
 AGCGCTCGCC AACGACGCGC TCCTCCTGAA ACTCGGGCTG CGCGCTTGGC  
  
 11001 GGATTAGTCC CGCGCGCGCA CACGTGGCGG CCGCCGACCT GGTAACCGCA  
 CCTAATCAGG GCGCGCGCGT GTGCACCGCC GGCGGCTGGA CCATTGGCGT  
  
 11051 TACGAGCAGA CGGTGAACCA GGAGATTAAC TTTCAAAAAAA GCTTTAACAA  
 ATGCTCGTCT GCCACTTGGT CCTCTAATTG AAAGTTTTT CGAAATTGTT  
  
 11101 CCACGTGCGT ACGCTTGTGG CGCGCGAGGA GGTGGCTATA GGACTGATGC  
 GGTGCACGCA TGC GAACACC GCGCGCTCCT CCACCGATAT CCTGACTACG  
  
 11151 ATCTGTGGGA CTTTGTAAAGC GCGCTGGAGC AAAACCCAAA TAGCAAGCCG  
 TAGACACCCCT GAAACATTG CGCGACCTCG TTTTGGGTTT ATCGTTCGGC

FIG. 10A-14

11201 CTCATGGCGC AGCTGTTCCCT TATA GTGCAG CACAGCAGGG ACAACGAGGC  
 GAGTACCGCG TCGACAAGGA ATATCACGTC GTGTCGTCCC TGTTGCTCCG  
  
 11251 ATTCAAGGGAT GCGCTGCTAA ACATAGTAGA GCCCGAGGGC CGCTGGCTGC  
 TAAGTCCCTA CGCGACGATT TGTATCATCT CGGGCTCCCG GCGACCGACG  
  
 11301 TCGATTTGAT AAACATCCTG CAGAGCATAG TGGTGCAGGA GCGCAGCTTG  
 AGCTAAACTA TTTGTAGGAC GTCTCGTATC ACCACGTCCCT CGCGTCGAAC  
  
 11351 AGCCTGGCTG ACAAGGTGGC CGCCATCAAC TATTCCATGC TTAGCCTGGG  
 TCGGACCGAC TGTTCCACCG GCGGTAGTTG ATAAGGTACG AATCGGACCC  
  
 11401 CAAGTTTAC GCCCGCAAGA TATACCATAC CCCTTACGTT CCCATAGACA  
 GTTCAAAATG CGGGCGTTCT ATATGGTATG GGGATGCAA GGGTATCTGT  
  
 11451 AGGAGGTAAA GATCGAGGGG TTCTACATGC GCATGGCGCT GAAGGTGCTT  
 TCCTCCATT CTAGCTCCCC AAGATGTACG CGTACCGCGA CTTCCACGAA  
  
 11501 ACCTTGAGCG ACGACCTGGG CGTTTATCGC AACGAGCGCA TCCACAAGGC  
 TGGAACTCGC TGCTGGACCC GCAAATAGCG TTGCTCGCGT AGGTGTTCCG  
  
 11551 CGTGAGCGTG AGCCGGCGGC GCGAGCTCAG CGACCGCGAG CTGATGCACA  
 GCACTCGCAC TCGGCCGCG CGCTCGAGTC GCTGGCGCTC GACTACGTGT  
  
 11601 GCCTGCAAAG GGCCCTGGCT GGCACGGGCA GCGGCAGATAG AGAGGCCGAG  
 CGGACGTTTC CCGGGACCGA CCGTGCCCCGT CGCCGCTATC TCTCCGGCTC  
  
 11651 TCCTACTTTG ACGCGGGCGC TGACCTGCGC TGGGCCCAA GCGGACGCGC  
 AGGATGAAAC TGCGCCCCGCG ACTGGACGCG ACCCGGGGTT CGGCTGCGCG  
  
 11701 CCTGGAGGCA GCTGGGGCCG GACCTGGGCT GGCGGTGGCA CCCGCGCGCG  
 GGACCTCCGT CGACCCCCGGC CTGGACCCGA CCGCCACCGT GGGCGCGCGC  
  
 11751 CTGGCAACGT CGGCAGCGTG GAGGAATATG ACGAGGACGA TGAGTACGAG  
 GACCGTTGCA GCCGCCGCAC CTCCTTATAC TGCTCCTGCT ACTCATGCTC  
  
 11801 CCAGAGGACG GCGAGTACTA AGCGGTGATG TTTCTGATCA GATGATGCAA  
 GGTCTCCTGC CGCTCATGAT TCGCCACTAC AAAGACTAGT CTACTACGTT  
  
 11851 GACGCAACGG ACCCGGGCGGT GCGGGCGCG CTGCAGAGCC AGCCGTCCGG  
 CTGCGTTGCC TGGGCCGCCA CGCCCGCCGC GACGTCTCGG TCGGCAGGCC  
  
 11901 CCTTAACCTCC ACGGACGACT GGCGCCAGGT CATGGACCGC ATCATGTCGC  
 GGAATTGAGG TGCCTGCTGA CCGCGGTCCA GTACCTGGCG TAGTACAGCG  
  
 11951 TGACTGCGCG CAATCCTGAC GCGTTCCGGC AGCAGCCGCA GGCCAACCGG  
 ACTGACGCGC GTTAGGACTG CGCAAGGCCG TCGTCGGCGT CCGGTTGGCC

FIG. 10A-15

12001 CTCTCCGCAA TTCTGGAAGC GGTGGTCCCG GCGCGCGCAA ACCCCACGCA  
 GAGAGGC GTT AAGACCTTCG CCACCAGGGC CGCGCGCGTT TGGGGTGC GT  
  
 12051 CGAGAAAGGTG CTGGCGATCG TAAACGCGCT GGCGAAAAC AGGGCCATCC  
 GCTCTTCCAC GACCGCTAGC ATTTGCGCGA CCGGCTTTG TCCC GGTTAGG  
  
 12101 GGCCC GACGA GGCGGCCCTG GTCTACGACG CGCTGCTTCA GCGCGTGGCT  
 CCGGGCTGCT CCGGCCGGAC CAGATGCTGC GCGACGAAGT CGCGCACCGA  
  
 12151 CGTTACAACA GCGGCAACGT GCAGACCAAC CTGGACCGGC TGGTGGGGGA  
 GCAATGTTGT CGCCGTTGCA CGTCTGGTTG GACCTGGCCG ACCACCCCT  
  
 12201 TGTGCGCGAG GCCGTGGCGC AGCGTGAGCG CGCGCAGCAG CAGGGCAACC  
 ACACGCGCTC CGGCACCGCG TCGCACTCGC GCGCGTCGTC GTCCC GTTGG  
  
 12251 TGGGCTCCAT GGTTGCACTA AACGCCTTCC TGAGTACACA GCGGCCAAC  
 ACCCGAGGTA CCAACGTGAT TTGCGGAAGG ACTCATGTTG CGGGCGGTTG  
  
 12301 GTGCCGCGGG GACAGGAGGA CTACACCAAC TTTGTGAGCG CACTGCGGCT  
 CACGGCGCCC CTGTCCTCCT GATGTGGTTG AAACACTCGC GTGACGCCGA  
  
 12351 AATGGTGACT GAGACACCGC AAAGTGAGGT GTACCAGTCT GGGCCAGACT  
 TTACCACTGA CTCTGTGGCG TTTCACTCCA CATGGTCAGA CCCGGTCTGA  
  
 12401 ATTTTTCCA GACCAGTAGA CAAGGCCTGC AGACCGTAAA CCTGAGCCAG  
 TAAAAAAGGT CTGGTCATCT GTTCCGGACG TCTGGCATTT GGACTCGGTC  
  
 12451 GCTTCAAAA ACTTGCAGGG GCTGTGGGG GTGCGGGCTC CCACAGGCAG  
 CGAAAGTTT TGAACGTCCC CGACACCCCC CACGCCGAG GGTGTCCGCT  
  
 12501 CCGCGCGACC GTGTCTAGCT TGCTGACGCC CAACTCGCGC CTGTTGCTGC  
 GGCGCGCTGG CACAGATCGA ACGACTGCGG GTT GAGCGCG GACAACGACG  
  
 12551 TGCTAATAGC GCCCTTCACG GACAGTGGCA GCGTGTCCCG GGACACATA  
 ACGATTATCG CGGGAAAGTGC CTGTCACCGT CGCACAGGGC CCTGTGTATG  
  
 12601 CTAGGTCACT TGCTGACACT GTACCGCGAG GCCATAGGTC AGGCGCATGT  
 GATCCAGTGA ACGACTGTTGA CATGGCGCTC CGGTATCCAG TCCGCGTACA  
  
 12651 GGACGAGCAT ACTTCCAGG AGATTACAAG TGTCAGCCGC GCGCTGGGGC  
 CCTGCTCGTA TGAAAGGTCC TCTAATGTTA ACAGTCGGCG CGCGACCCCG  
  
 12701 AGGAGGGACAC GGGCAGCCTG GAGGCAACCC TAAACTACCT GCTGACCAAC  
 TCCTCCTGTG CCCGTCGGAC CTCCGTTGGG ATTTGATGGA CGACTGGTTG  
  
 12751 CGGCGGCAGA AGATCCCCCTC GTTGCACAGT TTAAACAGCG AGGAGGGAGCG  
 GCCGCCGTCT TCTAGGGAG CAACGTGTCA AATTTGTCGC TCCTCCTCGC

FIG. 10A-16

12801 CATTTCGCGC TACGTGCAGC AGAGCGTGAG CCTTAACCTG ATGCGCGACG  
 GTAAAACGCG ATGCACGTCG TCTCGCACTC GGAATTGGAC TACCGCGCTGC  
  
 12851 GGGTAACGCC CAGCGTGGCG CTGGACATGA CCGCGCGCAA CATGGAACCG  
 CCCATTGCGG GTCGCACCGC GACCTGTACT GGCGCGCGTT GTACCTTGGC  
  
 12901 GGCATGTATG CCTCAAACCG GCCGTTTATC AACCGCCTAA TGGACTACTT  
 CCGTACATAC GGAGTTGGC CGGCAAATAG TTGGCGGATT ACCTGATGAA  
  
 12951 GCATCGCGCG GCCGCCGTGA ACCCCGAGTA TTTCACCAAT GCCATCTTGA  
 CGTAGCGCGC CGGCGGCACT TGGGGCTCAT AAAGTGGTTA CGGTAGAACT  
  
 13001 ACCCGCACTG GCTACCGCCC CCTGGTTTCT ACACCGGGGG ATTTCGAGGTG  
 TGGCGTGAC CGATGGCGGG GGACCAAAGA TGTGGCCCC TAAGCTCCAC  
  
 13051 CCCGAGGGTA ACGATGGATT CCTCTGGGAC GACATAGACG ACAGCGTGT  
 GGGCTCCCAT TGCTACCTAA GGAGACCCTG CTGTATCTGC TGTGCGACAA  
  
 13101 TTCCCCGCAA CCGCAGACCC TGCTAGAGTT GCAACAGCGC GAGCAGGGCAG  
 AAGGGCGTT GGCGTCTGGG ACGATCTCAA CGTTGTCGCG CTCGTCCGTC  
  
 13151 AGGCGGGCGT GCGAAAGGAA AGCTTCCGCA GGCCAAGCAG CTTGTCCGAT  
 TCCGCCGCGA CGCTTCCTT TCGAAGGCGT CCGGTTCGTC GAACAGGCTA  
  
 13201 CTAGGCGCTG CGGCCCGCG GTCAGATGCT AGTAGCCAT TTCCAAGCTT  
 GATCCCGCGAC GCCGGGGCGC CAGTCTACGA TCATCGGGTA AAGGTTCGAA  
  
 13251 GATAGGGTCT CTTACCAGCA CTCGCACCAC CGGCCCGCGC CTGCTGGCG  
 CTATCCCAGA GAATGGTCGT GAGCGTGGTG GGCGGGGCGC GACGACCCGC  
  
 13301 AGGAGGGAGTA CCTAAACAAC TCGCTGCTGC AGCCGCAGCG CGAAAAAAAC  
 TCCTCCTCAT GGATTGTTG AGCGACGACG TCGGCGTCGC GCTTTTTTG  
  
 13351 CTGCCTCCGG CATTTCCAA CAACGGATA GAGAGCCTAG TGGACAAGAT  
 GACGGAGGCC GTAAAGGGTT GTTGCCTAT CTCTCGGATC ACCTGTTCTA  
  
 13401 GAGTAGATGG AAGACGTACG CGCAGGGAGCA CAGGGACGTG CCAGGCCCGC  
 CTCATCTACC TTCTGCATGC GCGTCCTCGT GTCCCTGCAC GGTCCGGCG  
  
 13451 GCCCGCCCAC CCGTCGTCAA AGGCACGACC GTCAGGGGG TCTGGTGTGG  
 CGGGCGGGTG GGCAGCAGTT TCCGTGCTGG CAGTCGCCCC AGACCACACC  
  
 13501 GAGGACGATG ACTCGGCAGA CGACAGCAGC GTCCTGGATT TGGGAGGGAG  
 CTCCTGCTAC TGAGCCGTCT GCTGTCGTCG CAGGACCTAA ACCCTCCCTC  
  
 13551 TGGCAACCCG TTTGCGCACC TTGCCCCAG GCTGGGGAGA ATGTTTAAA  
 ACCGTTGGGC AACCGCGTGG AAGCGGGTC CGACCCCTCT TACAAAATTT

FIG. 10A-17

13601 AAAAAAAA GCATGATGCA AAATAAAA CTCACCAAGG CCATGGCACC  
 TTTTTTTT CGTACTACGT TTTATTTT GAGTGGTCC GGTACCGTGG  
  
 13651 GAGCGTTGGT TTTCTTGTAT TCCCCTTAGT ATGCGGCGCG CGGCATGTA  
 CTCGCAACCA AAAGAACATA AGGGGAATCA TACGCCGCGC GCCGCTACAT  
  
 13701 TGAGGAAGGT CCTCCTCCCT CCTACGAGAG TGTGGTGAGC GCGGCCAG  
 ACTCCTTCCA GGAGGAGGGA GGATGCTCTC ACACCACCTCG CGCCGCGGTC  
  
 13751 TGGCGGCAGGC GCTGGGTTCT CCCTTCGATG CTCCCCCTGGA CCCGCCGTT  
 ACCGCCGCGC CGACCCAAGA GGGAAAGCTAC GAGGGGACCT GGGCGGCAA  
  
 13801 GTGCCTCCGC GGTACCTGCG GCCTACCGGG GGGAGAAACA GCATCCGTTA  
 CACGGAGGCG CCATGGACGC CGGATGGCCC CCCTCTTGT CGTAGGCAAT  
  
 13851 CTCTGAGTTG GCACCCCTAT TCGACACCAC CCGTGTGTAC CTGGTGGACA  
 GAGACTCAAC CGTGGGGATA AGCTGTGGTG GGCACACATG GACCACCTGT  
  
 13901 ACAAGTCAAC GGATGTGGCA TCCCTGAACT ACCAGAACGA CCACAGCAAC  
 TGTTCAGTTG CCTACACCGT AGGGACTTGA TGGTCTTGCT GGTGTCGTTG  
  
 13951 TTTCTGACCA CGGTCATTCA AAACAATGAC TACAGCCCGG GGGAGGCAAG  
 AAAGACTGGT GCCAGTAAGT TTTGTTACTG ATGTCGGGCC CCCTCCGTT  
  
 14001 CACACAGACC ATCAATCTTG ACGACCGGTC GCACTGGGC GGCGACCTGA  
 GTGTGTCTGG TAGTTAGAAC TGCTGGCCAG CGTGACCCCG CCGCTGGACT  
  
 14051 AAACCACCT GCATACCAAC ATGCCAAATG TGAACGAGTT CATGTTTAC  
 TTTGGTAGGA CGTATGGTTG TACGGTTTAC ACTTGCTCAA GTACAAATGG  
  
 14101 AATAAGTTA AGGCGCGGGT GATGGTGTG CGCTTGCCTA CTAAGGACAA  
 TTATTCAAAT TCCGCGCCCA CTACACACAGC GCGAACGGAT GATTCCCTGTT  
  
 14151 TCAGGTGGAG CTGAAATACG AGTGGGTGGA GTTCACGCTG CCCGAGGGCA  
 AGTCCACCTC GACTTATGC TCACCCACCT CAAGTGCAC GGGCTCCCGT  
  
 14201 ACTACTCCGA GACCATGACC ATAGACCTTA TGAACAAACGC GATCGTGGAG  
 TGATGAGGCT CTGGTACTGG TATCTGGAAT ACTTGTTGCG CTAGCACCTC  
  
 14251 CACTACTTGA AAGTGGGCAG ACAGAACGGG GTTCTGGAAA GCGACATCGG  
 GTGATGAAC TTCACCCGTC TGTCTGCC CAAGACCTTT CGCTGTAGCC  
  
 14301 GGTAAAGTTT GACACCCGCA ACTTCAGACT GGGGTTGAC CCCGTCACTG  
 CCATTCAAA CTGTGGCGT TGAAGTCTGA CCCCAAACG GGGCAGTGAC  
  
 14351 GTCTTGTCA TGCCTGGGTA TATACAAACG AAGCCTTCCA TCCAGACATC  
 CAGAACAGTA CGGACCCCAT ATATGTTGC TTCGGAAGGT AGGTCTGTAG

FIG. 10A-18

14401 ATTTTGCTGC CAGGATGCGG GGTGGACTTC ACCCACAGCC GCCTGAGCAA  
 TAAAACGACG GTCCTACGCC CCACCTGAAG TGGGTGTCGG CGGACTCGTT  
  
 14451 CTTGTTGGGC ATCCGCAAGC GGCAACCCTT CCAGGAGGGC TTTAGGATCA  
 GAACAACCCG TAGGCGTTCG CCGTTGGAA GGTCTCCCG AAATCCTAGT  
  
 14501 CCTACGATGA TCTGGAGGGT GGTAACATTG CCGCACTGTT GGATGTGGAC  
 GGATGCTACT AGACCTCCCA CCATTGTAAG GGCGTGACAA CCTACACCTG  
  
 14551 GCCTACCAGG CGAGCTTGAA AGATGACACC GAACAGGGCG GGGGTGGCGC  
 CGGATGGTCC GCTCGAACTT TCTACTGTGG CTTGTCCCAG CCCCACCGCG  
  
 14601 AGGCGGCAGC AACAGCAGTG GCAGCGCGC GGAAGAGAAC TCCAACGCGG  
 TCCGCCGTCG TTGTCGTCAC CGTCGCCGCG CCTTCTCTTG AGGTTGCGCC  
  
 14651 CAGCCCGGGC AATGCAGCCG GTGGAGGACA TGAACGATCA TGCCATTGCG  
 GTCGGCGCCG TTACGTCGGC CACCTCCTGT ACTTGCTAGT ACGGTAAGCG  
  
 14701 GGCGACACCT TTGCCACACG GGCTGAGGAG AAGCGCGCTG AGGCCGAAGC  
 CCGCTGTGGA AACGGTGTGC CCGACTCCTC TTCGCGCGAC TCCGGCTTCG  
  
 14751 AGCGGCCGAA GCTGCCGCCC CCGCTGCGCA ACCCGAGGTC GAGAAGCCTC  
 TCGCCGGCTT CGACGGCGGG GGCGACGCGT TGGGCTCCAG CTCTTCGGAG  
  
 14801 AGAAGAAACC GGTGATCAAA CCCCTGACAG AGGACAGCAA GAAACGCAGT  
 TCTTCTTGG CCACTAGTTT GGGGACTGTC TCCTGTCGTT CTTTGCCTCA  
  
 14851 TACAACCTAA TAAGCAATGA CAGCACCTTC ACCCAGTACC GCAGCTGGTA  
 ATGTTGGATT ATTGTTACT GTCGTGGAAG TGGGTCATGG CGTCGACCAT  
  
 14901 CCTTGCATAC AACTACGGCG ACCCTCAGAC CGGAATCCGC TCATGGACCC  
 GGAACGTATG TTGATGCCGC TGGGAGTCTG GCCTTAGGCG AGTACCTGGG  
  
 14951 TGCTTGCAC TCCTGACGTA ACCTGCGGCT CGGAGCAGGT CTACTGGTCG  
 ACGAAACGTG AGGACTGCAT TGGACGCCGA GCCTCGTCCA GATGACCAGC  
  
 15001 TTGCCAGACA TGATGCAAGA CCCC GTGACCC TTCCGCTCCA CGCGCCAGAT  
 AACGGTCTGT ACTACGTTCT GGGGACTGG AAGGCGAGGT GCGCGGTCTA  
  
 15051 CAGCAAACTTT CCGGTGGTGG GCGCCGAGCT GTTGCCCGTG CACTCCAAGA  
 GTCGTTGAAA GGCCACCACC CGCGGCTCGA CAACGGGCAC GTGAGGTTCT  
  
 15101 GCTTCTACAA CGACCAGGCC GTCTACTCCC AACTCATCCG CCAGTTTACC  
 CGAAGATGTT GCTGGTCCGG CAGATGAGGG TTGAGTAGGC GGTCAAATGG  
  
 15151 TCTCTGACCC ACGTGTTCAA TCGCTTCCC GAGAACAGA TTTTGGCGCG  
 AGAGACTGGG TGCACAAGTT AGCGAAAGGG CTCTTGGTCT AAAACCGCGC

FIG. 10A-19

15201 CCCGCCAGCC CCCACCATCA CCACCGTCAG TGAAAACGTT CCTGCTCTCA  
           GGGCGGTCGG GGGTGGTAGT GGTGGCAGTC ACTTTGCAA GGACGAGAGT  
  
 15251 CAGATCACGG GACGCTACCG CTGCGCAACA GCATCGGAGG AGTCCAGCGA  
           GTCTAGTGCC CTGCGATGGC GACGCGTTGT CGTAGCCTCC TCAGGTCGCT  
  
 15301 GTGACCATTA CTGACGCCAG ACGCCGCACC TGCCCCTACG TTTACAAGGC  
           CACTGGTAAT GACTGCGGTC TGCGGCGTGG ACGGGGATGC AAATGTTCCG  
  
 15351 CCTGGGCATA GTCTCGCCGC GCGTCCTATC GAGCCGCACT TTTTGAGCAA  
           GGACCCGTAT CAGAGCGGCG CGCAGGATAG CTCGGCGTGA AAAACTCGTT  
  
 15401 GCATGTCCAT CCTTATATACG CCCAGCAATA ACACAGGCTG GGGCCTGCGC  
           CGTACAGGTA GGAATATAGC GGGTCGTTAT TGTGTCCGAC CCCGGACGCG  
  
 15451 TTCCCAAGCA AGATGTTGG CGGGGCCAAG AAGCGCTCCG ACCAACACCC  
           AAGGGTTCGT TCTACAAACC GCCCCGGTTC TTCGCGAGGC TGGTTGTGGG  
  
 15501 AGTGGCGCGTG CGCGGGCACT ACCGCGCGCC CTGGGGCGCG CACAAACGCG  
           TCACGCGCAC GCGCCCGTGA TGGCGCGCGG GACCCCGCGC GTGTTGCGC  
  
 15551 GCCGCACTGG GCGCACCAACC GTCGATGACG CCATCGACGC GGTGGTGGAG  
           CGGCGTGACC CGCGTGGTGG CAGCTACTGC GGTAGCTGCG CCACCACCTC  
  
 15601 GAGGCGCGCA ACTACACGCC CACGCCGCCA CCAGTGTCCA CAGTGGACGC  
           CTCCGCGCGT TGATGTGCGG GTGCGGCGGT GGTCACAGGT GTCACCTGCG  
  
 15651 GGCCATTCAAG ACCGTGGTGC CGGGAGCCCG GCGCTATGCT AAAATGAAGA  
           CCGGTAAGTC TGGCACCAACG CGCCTCGGGC CGCGATAACGA TTTTACTTCT  
  
 15701 GACGGCGGAG GCGCGTAGCA CGTCGCCACC GCCGCCGACC CGGCACTGCC  
           CTGCCGCCTC CGCGCATCGT GCAGCGGTGG CGGCGGCTGG GCCGTGACGG  
  
 15751 GCCCAACGCG CGGCGGCCGGC CCTGCTTAAC CGCGCACGTC GCACCGGCCG  
           CGGGTTGCGC GCCGCCGCCG GGACGAATTG GCGCGTGCAG CGTGGCCGGC  
  
 15801 ACGGGGCGGCC ATGCGGGCCG CTCGAAGGCT GGCCGCGGGT ATTGTCACTG  
           TGCCCCGCCGG TACGCCCGGC GAGCTTCCGA CGGGCGCCCA TAACAGTGAC  
  
 15851 TGCCCCCCCAG GTCCAGGCGA CGAGCGGCCG CGCGAGCAGC CGCGGCCATT  
           ACGGGGGGTC CAGGTCCGCT GCTCGCCGGC GGCGTCGTCG GCGCCGGTAA  
  
 15901 AGTGCTATGA CTCAGGGTCG CAGGGGCAAC GTGTATTGGG TGCACGACTC  
           TCACGATACT GAGTCCCAGC GTCCCCGTTG CACATAACCC ACACGCTGAG  
  
 15951 GGTTAGCGGC CTGCGCGTGC CGGTGCGCAC CGGCCCGCCG CGCAACTAGA  
           CCAATCGCCG GACGCGCACG GGCACGCGTG GGCAGGGGGC GCGTTGATCT

FIG. 10A-20

16001 TTGCAAGAAA AAACTACTTA GACTCGTACT GTTGTATGTA TCCAGCGGCG  
 AACGTTCTTT TTTGATGAAT CTGAGCATGA CAACATACAT AGGTCGCCGC  
  
 16051 GCGGCGCGCA ACGAAGCTAT GTCCAAGCGC AAAATCAAAG AAGAGATGCT  
 CGCCGCGCGT TGCTTCGATA CAGGTTCGCG TTTTAGTTTC TTCTCTACGA  
  
 16101 CCAGGTCACTC GCGCCGGAGA TCTATGGCCC CCCGAAGAAC GAAGAGCAGG  
 GGTCCAGTAG CGCAGGCCTCT AGATACCGGG GGGCTTCTTC CTTCTCGTCC  
  
 16151 ATTACAAGCC CCGAAAGCTA AAGCGGGTCA AAAAGAAAAA GAAAGATGAT  
 TAATGTTCGG GGCTTCGAT TTCGCCAGT TTTTCTTTT CTTTCTACTA  
  
 16201 GATGATGAAC TTGACGACGA GGTGGAAC TG CTGCACGCTA CCGCGCCAG  
 CTACTACTTG AACTGCTGCT CCACCTTGAC GACGTGCGAT GGCGCGGGTC  
  
 16251 GCGACGGGTA CAGTGGAAAG GTCGACGCGT AAAACGTGTT TTGCGACCCG  
 CGCTGCCCAT GTCACCTTTC CAGCTGCGCA TTTGACCAA AACGCTGGGC  
  
 16301 GCACCACCGT AGTCTTACG CCCGGTGAGC GCTCCACCCG CACCTACAAG  
 CGTGGTGGCA TCAGAAATGC GGGCCACTCG CGAGGTGGGC GTGGATGTT  
  
 16351 CGCGTGTATG ATGAGGTGTA CGGCGACGAG GACCTGCTTG AGCAGGCCAA  
 GCGCACATAC TACTCCACAT GCCGCTGCTC CTGGACGAAC TCGTCCGGTT  
  
 16401 CGAGCGCCTC GGGGAGTTTG CCTACGGAAA GCGGCATAAG GACATGCTGG  
 GCTCGCGGAG CCCCTCAAAC GGATGCCATT CGCCGTATTG CTGTACGACC  
  
 16451 CGTTGCCGCT GGACGAGGGC AACCCAACAC CTAGCCTAAA GCCCGTAACA  
 GCAACGGCGA CCTGCTCCCCG TTGGGTTGTG GATCGGATTT CGGGCATTGT  
  
 16501 CTGCAGCAGG TGCTGCCGCG GCTTGCACCG TCCGAAGAAA AGCGCGGCCT  
 GACGTGTCAC ACGACGGGCG CGAACGTGGC AGGCTTCTTC TCGCGCCGG  
  
 16551 AAAGCGCGAG TCTGGTGAAT TGGCACCCAC CGTGCAGCTG ATGGTACCCA  
 TTTCGCGCTC AGACCACTGA ACCGTGGGTG GCACGTCGAC TACCATGGGT  
  
 16601 AGCGCCAGCG ACTGGAAGAT GTCTTGGAAA AAATGACCGT GGAACCTGGG  
 TCGCGGTGCG TGACCTTCTA CAGAACCTTT TTTACTGGCA CCTTGGACCC  
  
 16651 CTGGAGCCCG AGGTCCGCGT GCGGCCAATC AAGCAGGTGG CGCCGGGACT  
 GACCTCGGGC TCCAGGCGCA CGCCGGTTAG TTCGTCCACC GCGGCCCTGA  
  
 16701 GGGCGTGCAG ACCGTGGACG TTCAGATACC CACTACCAAGT AGCACCAAGTA  
 CCCGCACGTC TGGCACCTGC AAGTCTATGG GTGATGGTCA TCGTGGTCAT  
  
 16751 TTGCCACCGC CACAGAGGGC ATGGAGACAC AAACGTCCCC GGTTGCCCTCA  
 AACGGTGGCG GTGTCTCCCG TACCTCTGTG TTTGCAGGGG CCAACGGAGT

FIG. 10A-21

16801 GCGGTGGCGG ATGCCGCGGT GCAGGC GGTC GCTGC GGCG CGTCCAAGAC  
 CGCCACCGCC TACGGCGCCA CGTCCGCCAG CGACGCCGGC GCAGGTTCTG  
  
 16851 CTCTACGGAG GTGCAAACGG ACCCGTGGAT GTTCGCGTT TCAGCCCCC  
 GAGATGCCTC CACGTTGCC TGGGCACCTA CAAAGCGCAA AGTCGGGGGG  
  
 16901 GGCGCCCGCG CCGTCGAGG AAGTACGGCG CCGCCAGCGC GCTACTGCC  
 CCGCGGGCGC GGCAAGCTCC TTCATGCCGC GGCGGTGCGC CGATGACGGG  
  
 16951 GAATATGCC C TACATCCTTC CATTGCGCCT ACCCCC GGCT ATCGTGGCTA  
 CTTATACGGG ATGTAGGAAG GTAACGCCA TGGGGGCCGA TAGCACCGAT  
  
 17001 CACCTACCGC CCCAGAACGAC GAGCAACTAC CCGACGCCGA ACCACCACTG  
 GTGGATGGCG GGGTCTTCTG CTCGTTGATG GGCTGCCGCT TGGTGGTGAC  
  
 17051 GAACCCGCCG CCGCCGTCGC CGTCGCCAGC CCGTGCTGGC CCCGATTTC  
 CTTGGCGGC GGCGGCAGCG GCAGCGGTG GGCACGACCG GGGCTAAAGG  
  
 17101 GTGCGCAGGG TGGCTCGCGA AGGAGGCAGG ACCCTGGTGC TGCCAACAGC  
 CACCGTCCC ACCGAGCGCT TCCTCCGTCC TGGGACCACG ACGGTTGTCG  
  
 17151 GCGCTACCA C CCCAGCATCG TTTAAAAGCC GGTCTTGTG GTTCTTGCAG  
 CGCGATGGTG GGGTCGTAGC AAATTTCGG CCAGAAACAC CAAGAACGTC  
  
 17201 ATATGGCCCT CACCTGCCGC CTCCGTTCC CGGTGCCGGG ATTCCGAGGA  
 TATAACCGGG A GTGGACGGCG GAGGCAAAGG GCCACGGCCC TAAGGCTCCT  
  
 17251 AGAATGCACC GTAGGAGGGG CATGGCCGGC CACGGCCTGA CGGGCGGCAT  
 TCTTACGTGG CATCCTCCCC GTACCGGCCG GTGCCGGACT GCCCGCCGTA  
  
 17301 GCGTCGTGCG CACCACCGGC GGCGCGCGC GTCGCACCGT CGCATGCGCG  
 CGCAGCACGC GTGGTGGCCG CGCCCGCGC CAGCGTGGCA GCGTACGCGC  
  
 17351 GCGGTATCCT GCCCCTCCTT ATTCCACTGA TCGCCGCCGGC GATTGGCGCC  
 CGCCATAGGA CGGGGAGGAA TAAGGTGACT AGCGGCGCCG CTAACCGCGG  
  
 17401 GTGCCCGGAA TTGCATCCGT GGCCTTGCAG GCGCAGAGAC ACTGATTAAA  
 CACGGGCCTT AACGTAGGCA CGGAACGTC CGCGTCTCTG TGACTAATTT  
  
 17451 AACAAAGTTGC ATGTGGAAAA ATCAAAATAA AAAGTCTGGA CTCTCACGCT  
 TTGTTCAACG TACACCTTT TAGTTTATT TTTCAGACCT GAGAGTGCAG  
  
 17501 CGCTTGGTCC TGTAACATT TTGTAGAATG GAAGACATCA ACTTGCCTC  
 GCGAACCAAGG ACATTGATAA AACATCTTAC CTTCTGTAGT TGAAACCGCAG  
  
 17551 TCTGGCCCCG CGACACGGCT CGCGCCCGTT CATGGGAAAC TGGCAAGATA  
 AGACCGGGGC GCTGTGCCGA CGCGGGCAA GTACCCTTG ACCGTTCTAT

FIG. 10A-22

17601 TCGGCACCAAG CAATATGAGC GGTGGCGCCT TCAGCTGGGG CTCGCTGTGG  
 AGCCGTGGTC GTTATACTCG CCACCGCGGA AGTCGACCCC GAGCGACACC  
  
 17651 AGCGGCATTA AAAATTTCGG TTCCACCGTT AAGAACTATG GCAGCAAGGC  
 TCGCCGTAAT TTTAAAGCC AAGGTGGCAA TTCTTGATAC CGTCGTTCCG  
  
 17701 CTGGAACAGC AGCACAGGCC AGATGCTGAG GGATAAGTTG AAAGAGCAAA  
 GACCTTGTCA TCGTGTCCGG TCTACGACTC CCTATTCAAC TTTCTCGTT  
  
 17751 ATTTCCAACA AAAGGTGGTA GATGGCCTGG CCTCTGGCAT TAGCGGGGTG  
 TAAAGGTTGT TTTCCACCAT CTACCGGACC GGAGACCGTA ATCGCCCCAC  
  
 17801 GTGGACCTGG CCAACCAGGC AGTGAAAAT AAGATTAACA GTAAGCTTGA  
 CACCTGGACC GGTTGGTCCG TCACGTTTA TTCTAATTGT CATTGAACT  
  
 17851 TCCCCGCCCT CCCGTAGAGG AGCCTCCACC GGCGTGGAG ACAGTGTCTC  
 AGGGGCGGGGA GGGCATCTCC TCGGAGGTGG CCGGCACCTC TGTCACAGAG  
  
 17901 CAGAGGGGCG TGGCGAAAAG CGTCCGCGCC CCGACAGGGGA AGAAACTCTG  
 GTCTCCCCGC ACCGCTTTTC GCAGGGCGGG GGCTGTCCCT TCTTTGAGAC  
  
 17951 GTGACGCAAA TAGACGAGCC TCCCTCGTAC GAGGAGGCAC TAAAGCAAGG  
 CACTGCGTTT ATCTGCTCGG AGGGAGCATG CTCCTCCGTG ATTCGTTCC  
  
 18001 CCTGCCACC ACCCGTCCCA TCGCGCCCAT GGCTACCGGA GTGCTGGGCC  
 GGACGGGTGG TGGGCAGGGT AGCGCGGGTA CCGATGGCCT CACGACCCGG  
  
 18051 AGCACACACC CGTAACGCTG GACCTGCCTC CCCCCGCCGA CACCCAGCAG  
 TCGTGTGTGG GCATTGCGAC CTGGACGGAG GGGGGCGGCT GTGGGTCGTC  
  
 18101 AACCTGTGC TGCCAGGCC GACCGCCGTT GTTGTAAACCC GTCCTAGCCG  
 TTTGGACACG ACGGTCCGGG CTGGCGGCAA CAACATGGG CAGGATCGGC  
  
 18151 CGCGTCCCTG CGCCGCGCCG CCAGCGGTCC GCGATCGTTG CGGCCCGTAG  
 GCGCAGGGAC GCGGCGCGGC GGTGCGCAGG CGCTAGCAAC GCCGGGCATC  
  
 18201 CCAGTGGCAA CTGGCAAAGC ACACTGAACA GCATCGTGGG TCTGGGGGTG  
 GGTCACCGTT GACCGTTTCG TGTGACTTGT CGTAGCACCC AGACCCCCAC  
  
 18251 CAATCCCTGA AGCGCCGACG ATGCTTCTGA TAGCTAACGT GTCGTATGTG  
 GTTAGGGACT TCGCGGCTGC TACGAAGACT ATCGATTGCA CAGCATAACAC  
  
 18301 TGTCATGTAT GCGTCCATGT CGCCGCCAGA GGAGCTGCTG AGCCGCCGCG  
 ACAGTACATA CGCAGGTACA GCGGCGGTCT CCTCGACGAC TCGGCAGCGC  
  
 18351 CGCCCGCTTT CCAAGATGGC TACCCCTTCG ATGATGCCGC AGTGGTCTTA  
 GCGGGCAGAA GGTTCTACCG ATGGGGAAGC TACTACGGCG TCACCAAGAAT

FIG. 10A-23

18401 CATGCACATC TCGGGCCAGG ACGCCTCGGA GTACCTGAGC CCCGGGCTGG  
 GTACGTGTAG AGCCCCGTCC TGCGGAGCCT CATGGACTCG GGGCCCGACC  
  
 18451 TGCAGTTGC CCGCGCCACC GAGACGTACT TCAGCCTGAA TAACAAGTTT  
 ACGTCAAACG GGCGCGGTGG CTCTGCATGA AGTCGGACTT ATTGTTCAAA  
  
 18501 AGAAACCCC A CGGTGGCGCC TACGCACGAC GTGACCACAG ACCGGTCCCA  
 TCTTTGGGGT GCCACCGCGG ATGCGTGCTG CACTGGTGTC TGGCCAGGGT  
  
 18551 GCGTTTGACG CTGCGGTTCA TCCCTGTGGA CCGTGAGGAT ACTGCGTACT  
 CGCAAACACTGC GACGCCAAGT AGGGACACCT GGCACTCCTA TGACGCATGA  
  
 18601 CGTACAAGGC GC GGTTTCACC CTAGCTGTGG GTGATAACCG TGTGCTGGAC  
 GCATGTTCCG CGCCAAGTGG GATCGACACC CACTATTGGC ACACGACCTG  
  
 18651 ATGGCTTCCA CGTACTTTGA CATCCCGGGC GTGCTGGACA GGGGCCCTAC  
 TACCGAAGGT GCATGAAACT GTAGGCGCCG CACGACCTGT CCCCAGGGATG  
  
 18701 TTTTAAGCCC TACTCTGGCA CTGCCTACAA CGCCCTGGCT CCCAAGGGTG  
 AAAATTGGG ATGAGACCGT GACGGATGTT GCGGGACCGA GGGTTCCCAC  
  
 18751 CCCCCAAATCC TTGCGAATGG GATGAAGCTG CTACTGCTCT TGAAATAAAC  
 GGGGTTTAGG AACGCTTACC CTACTTCGAC GATGACGAGA ACTTTATTTG  
  
 18801 CTAGAAGAAG AGGACGATGA CAACGAAGAC GAAGTAGACG AGCAAGCTGA  
 GATCTCTTC TCCTGCTACT GTTGCTTCTG CTTCATCTGC TCGTTCGACT  
  
 18851 GCAGCAAAAA AACTCACGTAT TTGGGCAGGC GCCTTATTCT GGTATAAATA  
 CGTCGTTTT TGAGTGCATA AACCCGTCCG CGGAATAAGA CCATATTAT  
  
 18901 TTACAAAGGA GGGTATTCAA ATAGGTGTG AAGGTCAAAC ACCTAAATAT  
 AATGTTTCCT CCCATAAGTT TATCCACAGC TTCCAGTTG TGGATTTATA  
  
 18951 GCCGATAAAA CATTCAACC TGAACCTCAA ATAGGAGAAT CTCAGTGGTA  
 CGGCTATTTT GTAAAGTTGG ACTTGGAGTT TATCCTCTTA GAGTCACCAT  
  
 19001 CGAAACAGAA ATTAATCATG CAGCTGGGAG AGTCCTAAAA AAGACTACCC  
 GCTTGTCCT TAATTAGTAC GTCGACCTC TCAGGATTT TTCTGATGGG  
  
 19051 CAATGAAACC ATGTTACGGT TCATATGCAA AACCCACAAA TGAAAATGGA  
 GTTACTTTGG TACAATGCCA AGTATACGTT TTGGGTGTTT ACTTTACCT  
  
 19101 GGGCAAGGCA TTCTTGTAAA GCAACAAAAT GGAAAGCTAG AAAGTCAAGT  
 CCCGTTCCGT AAGAACATT CGTTGTTTA CCTTTCGATC TTTCAGTTCA  
  
 19151 GGAAATGCAA TTTTCTCAA CTACTGAGGC AGCCGCAGGC AATGGTGATA  
 CCTTACGTT AAAAGAGTT GATGACTCCG TCGGCCTCCG TTACCACTAT

FIG. 10A-24

19201 ACTTGACTCC TAAAGTGGTA TTGTACAGTG AAGATGTAGA TATAGAAACC  
 TGAACTGAGG ATTTCACCAT AACATGTCAC TTCTACATCT ATATCTTG  
  
 19251 CCAGACACTC ATATTTCTTA CATGCCACT ATTAAGGAAG GTAACTCACG  
 GGTCTGTGAG TATAAAGAAC GTACGGGTGA TAATTCCCTC CATTGAGTGC  
  
 19301 AGAACTAATG GGCCAACAAT CTATGCCAA CAGGCCTAAT TACATTGCTT  
 TCTTGATTAC CCGGTTGTTA GATACGGGTT GTCCGGATTA ATGTAACGAA  
  
 19351 TTAGGGACAA TTTTATTGGT CTAATGTATT ACAACAGCAC GGGTAATATG  
 AATCCCTGTT AAAATAACCA GATTACATAA TGTTGTCGTG CCCATTATAC  
  
 19401 GGTGTTCTGG CGGGCCAAGC ATCGCAGTTG AATGCTGTTG TAGATTTGCA  
 CCACAAGACC GCCCGGTTCG TAGCGTCAAC TTACGACAAC ATCTAACGT  
  
 19451 AGACAGAAAC ACAGAGCTTT CATAACCAGCT TTTGCTTGAT TCCATTGGTG  
 TCTGTCTTG TGTCTCGAAA GTATGGTCGA AAACGAACTA AGGTAACCAC  
  
 19501 ATAGAACCAAG GTACTTTCT ATGTGGAATC AGGCTGTTGA CAGCTATGAT  
 TATCTGGTC CATGAAAAGA TACACCTTAG TCCGACAAC ACTCGATACTA  
  
 19551 CCAGATGTTA GAATTATTGA AAATCATGGA ACTGAAGATG AACTTCCAAA  
 GGTCTACAAT CTTAATAACT TTTAGTACCT TGACTTCTAC TTGAAGGTTT  
  
 19601 TTACTGCTTT CCACTGGGAG GTGTGATTAA TACAGAGACT CTTACCAAGG  
 AATGACGAAA GGTGACCCCTC CACACTAATT ATGTCTCTGA GAATGGTTCC  
  
 19651 TAAAACCTAA AACAGGTCAAG GAAAATGGAT GGGAAAAAGA TGCTACAGAA  
 ATTTGGATT TTGTCCAGTC CTTTACCTA CCCTTTTCT ACCATGTCTT  
  
 19701 TTTTCAGATA AAAATGAAAT AAGAGTTGGA AATAATTTG CCATGGAAAT  
 AAAAGTCTAT TTTTACTTTA TTCTCAACCT TTATTAAAAC GGTACCTTTA  
  
 19751 CAATCTAAAT GCCAACCTGT GGAGAAATTT CCTGTACTCC AACATAGCGC  
 GTTAGATTAA CGGTTGGACA CCTCTTTAAA GGACATGAGG TTGTATCGCG  
  
 19801 TGTATTTGCC CGACAAGCTA AAGTACAGTC CTTCCAACGT AAAAATTTCT  
 ACATAAACGG GCTGTTCGAT TTCATGTCAG GAAGGTTGCA TTTTTAAAGA  
  
 19851 GATAACCCAA ACACCTACGA CTACATGAAC AAGCGAGTGG TGGCTCCGG  
 CTATTGGGTT TGTGGATGCT GATGTACTTG TTCGCTCACC ACCGAGGGCC  
  
 19901 GCTAGTGGAC TGCTACATTA ACCTGGAGC ACGCTGGTCC CTTGACTATA  
 CGATCACCTG ACGATGTAAT TGGAACCTCG TGCGACCAGG GAACTGATAT  
  
 19951 TGGACAACGT CAACCCATTT AACCAACCACC GCAATGCTGG CCTGCGCTAC  
 ACCTGTTGCA GTTGGGTAAA TTGGTGGTGG CGTTACGACC GGACGCGATG

FIG. 10A-25

20001 CGCTCAATGT TGCTGGCAA TGGTCGCTAT GTGCCCTCC ACATCCAGGT  
 GCGAGTTACA ACGACCCGTT ACCAGCGATA CACGGGAAGG TGTAGGTCCA  
  
 20051 GCCTCAGAAG TTCTTGCCTA TTAAAAACCT CCTTCTCCTG CCGGGCTCAT  
 CGGAGTCTTC AAGAAACGGT AATTGGAA GGAAGAGGAC GGCCCAGTA  
  
 20101 ACACCTACGA GTGGAACCTTC AGGAAGGATG TTAACATGGT TCTGCAGAGC  
 TGTGGATGCT CACCTTGAAG TCCTTCCTAC AATTGTACCA AGACGTCTCG  
  
 20151 TCCCTAGGAA ATGACCTAAG GGTTGACGGA GCCAGCATTAG AGTTTGATAG  
 AGGGATCCTT TACTGGATTC CCAACTGCCT CGGTCGTAAT TCAAACATATC  
  
 20201 CATTGCCCC TACGCCACCT TCTTCCCCAT GGCCCACAAAC ACCGCCTCCA  
 GTAAACGGAA ATGCGGTGGA AGAAGGGTA CGGGGTGTTG TGGCGGAGGT  
  
 20251 CGCTTGAGGC CATGCTTAGA AACGACACCA ACGACCAGTC CTTAACGAC  
 GCGAACTCCG GTACGAATCT TTGCTGTGGT TGCTGGTCAG GAAATTGCTG  
  
 20301 TATCTCTCCG CCGCCAACAT GCTCTACCCCT ATACCCGCCA ACGCTACCAA  
 ATAGAGAGGC GGCGGTTGTA CGAGATGGGA TATGGCGGT TGCGATGGTT  
  
 20351 CGTGCCCCATA TCCATCCCC TCCGCAACTG GGCGGCTTT CGCGGCTGGG  
 GCACGGGTAT AGGTAGGGGA GGGCGTTGAC CCGCCGAAAG GCGCCGACCC  
  
 20401 CCTTCACGCG CCTTAAGACT AAGGAAACCC CATCACTGGG CTCGGGCTAC  
 GGAAGTGCAC GGAATTCTGA TTCCCTTGGG GTAGTGAACCC GAGCCGATG  
  
 20451 GACCCTTATT ACACCTACTC TGGCTCTATA CCCTACCTAG ATGGAACCTT  
 CTGGGAATAA TGTGGATGAG ACCGAGATAT GGGATGGATC TACCTTGGAA  
  
 20501 TTACCTCAAC CACACCTTA AGAAGGTGGC CATTACCTTT GACTCTCTG  
 AATGGAGTTG GTGTGAAAT TCTTCCACCG GTAATGGAAA CTGAGAAGAC  
  
 20551 TCAGCTGGCC TGGCAATGAC CGCCTGCTTA CCCCCAACGA GTTGAAATT  
 AGTCGACCGG ACCGTTACTG GCGGACGAAT GGGGTTGCT CAAACTTTAA  
  
 20601 AAGCGCTCAG TTGACGGGGA GGGTTACAAC GTTGCCAGT GTAACATGAC  
 TTCGCGAGTC AACTGCCCT CCCAATGTTG CAACGGGTCA CATTGTACTG  
  
 20651 CAAAGACTGG TTCCTGGTAC AAATGCTAGC TAACTATAAC ATTGGCTACC  
 GTTTCTGACC AAGGACCATG TTTACGATCG ATTGATATTG TAACCGATGG  
  
 20701 AGGGCTTCTA TATCCCAGAG AGCTACAAGG ACCGCATGTA CTCTTCTTT  
 TCCCGAAGAT ATAGGGTCTC TCGATGTTCC TGGCGTACAT GAGGAAGAAA  
  
 20751 AGAAAATTCC AGCCCAGGAG CCGTCAGGTG GTGGATGATA CTAAATACAA  
 TCTTGAAGG TCGGGTACTC GGCAGTCCAC CACCTACTAT GATTATGTT

FIG. 10A-26

20801 GGACTACCAA CAGGTGGCA TCCTACACCA ACACAACAAC TCTGGATTTG  
 CCTGATGGTT GTCCACCCGT AGGATGTGGT TGTGTTGTTG AGACCTAAC  
  
 20851 TTGGCTACCT TGCCCCCACC ATGCGCGAAG GACAGGCCTA CCCTGCTAAC  
 AACCGATGGA ACGGGGGTGG TACGCGCTTC CTGTCCGGAT GGGACGATTG  
  
 20901 TTCCCCTATC CGCTTATAGG CAAGACCGCA GTTGACAGCA TTACCCAGAA  
 AAGGGGATAG GCGAATATCC GTTCTGGCGT CAACTGTCGT AATGGGTCTT  
  
 20951 AAAGTTTCTT TGCGATCGCA CCCTTGGCG CATCCCATTG TCCAGTAAC  
 TTTCAAAGAA ACGCTAGCGT GGGAAACCGC GTAGGGTAAG AGGTCATTGA  
  
 21001 TTATGTCCAT GGGCGCACTC ACAGACCTGG GCCAAAACCT TCTCTACGCC  
 AATAACAGGTA CCCGCGTGAG TGTCTGGACC CGGTTTGGGA AGAGATGCGG  
  
 21051 AACTCCGCC ACAGCGCTAGA CATGACTTT GAGGTGGATC CCATGGACGA  
 TTGAGGCGGG TGCGCGATCT GTACTGAAAA CTCCACCTAG GGTACCTGCT  
  
 21101 GCCCACCCCTT CTTTATGTTT TGTTGAAGT CTTTGACGTG GTCCGTGTGC  
 CGGGTGGGAA GAAATACAAA ACAAACTTCA GAAACTGCAC CAGGCACACG  
  
 21151 ACCAGCCGCA CCGCGCGTC ATCGAAACCG TGTACCTGCG CACGCCCTTC  
 TGGTCGGCGT GGCGCCGAG TAGCTTGGC ACATGGACGC GTGCGGAAAG  
  
 21201 TCGGCCGGCA ACGCCACAAC ATAAAGAACG AAGCAACATC AACAAACAGCT  
 AGCCGGCCGT TGCGGTGTTG TATTCTTCG TTCGTTGTAG TTGTTGTCGA  
  
 21251 GCCGCCATGG GCTCCAGTGA GCAGGAACTG AAAGCCATTG TCAAAGATCT  
 CGGCGGTACC CGAGGTCACT CGTCCTTGAC TTTCGGTAAC AGTTTCTAGA  
  
 21301 TGGTTGTGGG CCATATTTTT TGGGCACCTA TGACAAGCGC TTTCCAGGCT  
 ACCAACACCC GGTATAAAAA ACCCGTGGAT ACTGTTCGCG AAAGGTCCGA  
  
 21351 TTGTTTCTCC ACACAAGCTC GCCTGCGCCA TAGTCAATAC GGCCGGTCGC  
 AACAAAGAGG TGTGTTCGAG CGGACGCGGT ATCAGTTATG CCGGCCAGCG  
  
 21401 GAGACTGGGG GCGTACACTG GATGGCCTTT GCCTGGAACC CGCACTCAA  
 CTCTGACCCC CGCATGTGAC CTACCGAAA CGGACCTTGG GCGTGAGTTT  
  
 21451 AACATGCTAC CTCTTGAGC CCTTTGGCTT TTCTGACCAAG CGACTCAAGC  
 TTGTACGATG GAGAAACTCG GGAAACCGAA AAGACTGGTC GCTGAGTTCG  
  
 21501 AGGTTTACCA GTTGAGTAC GAGTCACTCC TGCGCCGTAG CGCCATTGCT  
 TCCAAATGGT CAAACTCATG CTCAGTGAGG ACGCGGCATC GCGGTAACGA  
  
 21551 TCTTCCCCCG ACCGCTGTAT AACGCTGGAA AAGTCCACCC AAAGCGTACA  
 AGAAGGGGGC TGGCGACATA TTGCGACCTT TTCAGGTGGG TTTCGCATGT

FIG. 10A-27

21601 GGGGCCAAC TCGGCCGCCT GTGGACTATT CTGCTGCATG TTTCTCCACG  
 CCCC GGTTG AGCCGGCGGA CACCTGATAA GACGACGTAC AAAGAGGTGC  
  
 21651 CCTTGCCTA CTGGCCCCAA ACTCCCCTGG ATCACAACCC CACCATGAAC  
 GGAAACGGTT GACC GGTT TGAGGGTAC TAGTGTGGG GTGGTACTTG  
  
 21701 CTTATTACCG GGGTACCCAA CTCCATGCTC AACAGTCCCC AGGTACAGCC  
 GAATAATGGC CCCATGGTT GAGGTACGAG TTGTCAGGGG TCCATGTCGG  
  
 21751 CACCCCTGCGT CGCAACCAGG AACAGCTCTA CAGCTTCCTG GAGGCCACT  
 GTGGGACGCA GCGTTGGTCC TTGTCGAGAT GTCGAAGGAC CTCGCGGTGA  
  
 21801 CGCCCTACTT CCGCAGCCAC AGTGCAGAGA TTAGGAGCGC CACTTCTTT  
 GCAGGATGAA GGCAGTCGGTG TCACGCGTCT AATCCTCGCG GTGAAGAAAA  
  
 21851 TGTCACTTGA AAAACATGTA AAAATAATGT ACTAGAGACA CTTTCAATAA  
 ACAGTGAAC TTTGTACAT TTTTATTACA TGATCTCTGT GAAAGTTATT  
  
 21901 AGGCAAATGC TTTTATTGT ACACTCTCGG GTGATTATTT ACCCCCACCC  
 TCCGTTACG AAAATAAACAA TGTGAGAGCC CACTAATAAA TGGGGGTGGG  
  
 21951 TTGCCGTCTG CGCCGTTAA AAATCAAAGG GGTTCTGCCG CGCATCGCTA  
 AACGGCAGAC GCGCAAATT TTAGTTCC CCAAGACGGC GCGTAGCGAT  
  
 22001 TGCGCCACTG GCAGGGACAC GTTGCATAAC TGGTGTAG TGCTCCACTT  
 ACGCGGTGAC CGTCCCTGTG CAACGCTATG ACCACAAATC ACGAGGTGAA  
  
 22051 AAACTCAGGC ACAACCATCC GCGGCAGCTC GGTGAAGTTT TCACTCCACA  
 TTTGAGTCCG TGTGAGTAGG CGCCGTCGAG CCACCTCAAA AGTGAGGTGT  
  
 22101 GGCTGCGCAC CATCACCAAC GCGTTAGCA GGTCGGCGC CGATATCTTG  
 CCGACGCGTG GTAGTGGTTG CGCAAATCGT CCAGCCCGCG GCTATAGAAC  
  
 22151 AAGTCGCAGT TGGGGCCTCC GCCCTGCGCG CGCGAGTTGC GATACACAGG  
 TTCAGCGTCA ACCCCGGAGG CGGGACGCGC GCGCTCAACG CTATGTGTCC  
  
 22201 GTTGCAGCAC TGGAACACTA TCAGCGCCGG GTGGTGCACG CTGGCCAGCA  
 CAACGTCGTG ACCTTGTGAT AGTCGCGGCC CACCACGTGC GACCGGTCGT  
  
 22251 CGCTCTTGTG TGAGATCAGA TCCGCGTCCA GGTCTCCGC GTTGCTCAGG  
 GCGAGAACAG CCTCTAGTCT AGGCGCAGGT CCAGGAGGCG CAACGAGTCC  
  
 22301 GCGAACGGAG TCAACTTGG TAGCTGCCTT CCCAAAAAGG GCGCGTGC  
 CGCTTGCCTC AGTTGAAACC ATCGACGGAA GGGTTTTCC CGCGCACGGG  
  
 22351 AGGCTTGAG TTGCACTCGC ACCGTAGTGG CATCAAAAGG TGACCGTGCC  
 TCCGAAACTC AACGTGAGCG TGGCATCACC GTAGTTTCC ACTGGCACGG

FIG. 10A-28

22401 CGGTCTGGGC GTTAGGATAC AGCGCCTGCA TAAAAGCCTT GATCTGCTTA  
 GCCAGACCCG CAATCCTATG TCGCGGACGT ATTTTCGGAA CTAGACGAAT  
  
 22451 AAAGCCACCT GAGCCTTGCG GCCTTCAGAG AAGAACATGC CGCAAGACTT  
 TTTCGGTGGAA CTCGGAAACG CGGAAGTCTC TTCTTGTACG GCGTTCTGAA  
  
 22501 GCCGGAAAAC TGATTGGCCG GACAGGCCGC GTCGTGCACG CAGCACCTTG  
 CGGCCTTTG ACTAACCGGC CTGTCCGGCG CAGCACGTGC GTCGTGGAAC  
  
 22551 CGTCGGTGTT GGAGATCTGC ACCACATTTC GGCCCCACCG GTTCTTCACG  
 GCAGCCACAA CCTCTAGACG TGGTGTAAAG CGGGGGTGGC CAAGAAGTGC  
  
 22601 ATCTTGGCCT TGCTAGACTG CTCCTTCAGC GCGCGCTGCC CGTTTTCGCT  
 TAGAACCGGA ACGATCTGAC GAGGAAGTCG CGCGCGACGG GCAAAAGCGA  
  
 22651 CGTCACATCC ATTTCAATCA CGTGCTCCTT ATTTATCATA ATGCTTCCGT  
 GCAGTGTAGG TAAAGTTAGT GCACGAGGAA TAAATAGTAT TACGAAGGCA  
  
 22701 GTAGACACTT AAGCTCGCCT TCGATCTCAG CGCAGCGGTG CAGCCACAAC  
 CATCTGTGAA TTCAAGCGGA AGCTAGAGTC GCGTCGCCAC GTCGGTGTG  
  
 22751 GCGCAGCCCG TGGGCTCGTG ATGCTTGTAG GTCACCTCTG CAAACGACTG  
 CGCGTCGGGC ACCCGAGCAC TACGAACATC CAGTGGAGAC GTTTGCTGAC  
  
 22801 CAGGTACGCC TGCAGGAATC GCCCCATCAT CGTCACAAAG GTCTTGTG  
 GTCCATGCGG ACGTCCTTAG CGGGGTAGTA GCAGTGTTC CAGAACAAACG  
  
 22851 TGGTGAAGGT CAGCTGCAAC CCGCGGTGCT CCTCGTTCAAG CCAGGTCTTG  
 ACCACTTCCA GTCGACGTTG GGCGCCACGA GGAGCAAGTC GGTCCAGAAC  
  
 22901 CATA CGAGGCCG CCAGAGCTTC CACTTGGTCA GGCAGTAGTT TGAAGTTCGC  
 GTATGCCGGC GGTCTCGAAG GTGAACCAGT CCGTCATCAA ACTTCAAGCG  
  
 22951 CTTTAGATCG TTATCCACGT GGTACTTGTGTC CATCAGCGCG CGCGCAGCCT  
 GAAATCTAGC AATAGGGTGCAC CCATGAACAG GTAGTCGCGC GCGCGTCGGA  
  
 23001 CCATGCCCTT CTCCCACGCA GACACGATCG GCACACTCAG CGGGTTCATC  
 GGTACGGGAA GAGGGTGCCT CTGTGCTAGC CGTGTGAGTC GCCCAAGTAG  
  
 23051 ACCGTAATTT CACTTCCGC TTCGCTGGGC TCTTCCTCTT CCTCTTGC  
 TGGCATTAAA GTGAAAGGCG AAGCGACCCG AGAAGGAGAA GGAGAACGCA  
  
 23101 CCGCATACCA CGCGCCACTG GGTGCTCTTC ATTCAAGCCGC CGCACTGTGC  
 GGCGTATGGT GCGCGGTGAC CCAGCAGAAC TAAGTCGGCG GCGTGACACG  
  
 23151 GCTTACCTCC TTTGCCATGC TTGATTAGCA CGGGTGGGTT GCTGAAACCC  
 CGAATGGAGG AACCGGTACG AACTAATCGT GGCCACCCAA CGACTTTGGG

FIG. 10A-29

23201 ACCATTTGTA GCGCCACATC TTCTCTTCT TCCTCGCTGT CCACGATTAC  
 TGGTAAACAT CGCGGTGTAG AAGAGAAAGA AGGAGCGACA GGTGCTAATG  
  
 23251 CTCTGGTGAT GGCGGGCGCT CGGGCTTGGG AGAAGGGCGC TTCTTTTCT  
 GAGACCACTA CCGCCCGCGA GCCCGAACCC TCTTCCCGCG AAGAAAAAGA  
  
 23301 TCTTGGGCAC AATGGCCAAA TCCGCCGCCG AGGTCGATGG CCGCGGGCTG  
 AGAACCCGCG TTACCGGTTT AGGCGGCGGC TCCAGCTACC GGCGCCCCGAC  
  
 23351 GGTGTGCGCG GCACCAGCGC GTCTTGTGAT GAGTCTTCCT CGTCCTCGGA  
 CCACACCGCG CCGTGGTCGCG CAGAACACTA CTCAGAAGGA GCAGGAGCCT  
  
 23401 CTCGATAACGC CGCCTCATCC GCTTTTTGG GGGCGCCCGG GGAGGCGGCG  
 GAGCTATGCG GCGGAGTAGG CGAAAAAACC CCCGCAGGGCC CCTCCGCCGC  
  
 23451 GCGACGGGGA CGGGGACGAC ACGTCCCTCA TGTTGGGGG ACgtcgcGCC  
 CGCTGCCCT GCCCCTGCTG TGCAGGAGGT ACCAACCCCC TGCAGCGCGG  
  
 23501 GCACCGCGTC CGCGCTCGGG GGTGGTTTCG CGCTGCTCCT CTTCCCGACT  
 CGTGGCGCAG GCGCGAGCCC CCACCAAAGC GCGACGAGGA GAAGGGCTGA  
  
 23551 GGCCATTTCG TTCTCCTATA GGCAGAAAAA GATCATGGAG TCAGTCGAGA  
 CCGGTAAAGG AAGAGGATAT CCGTCTTTT CTAGTACCTC AGTCAGCTCT  
  
 23601 AGAAGGACAG CCTAACCGCC CCCTCTGAGT TCGCCACCAC CGCCTCCACC  
 TCTTCCTGTC GGATTGGCGG GGGAGACTCA AGCGGTGGTG GCGGAGGTGG  
  
 23651 GATGCCGCCA ACGCGCTAC CACCTTCCCC GTCGAGGCAC CCCCCTTGA  
 CTACGGCGGT TGCGCGGATG GTGGAAGGGG CAGCTCCGTG GGGCGAACT  
  
 23701 GGAGGAGGAA GTGATTATCG AGCAGGACCC AGGTTTGTA AGCGAAGACG  
 CCTCCCTCCTT CACTAATAGC TCGTCCTGGG TCCAAAACAT TCGCTTCTGC  
  
 23751 ACGAGGACCG CTCAGTACCA ACAGAGGATA AAAAGCAAGA CCAGGACAAC  
 TGCTCCTGGC GAGTCATGGT TGTCTCCTAT TTTCTGTTCT GGTCTGTTG  
  
 23801 GCAGAGGCAA ACGAGGAACA AGTCGGCGG GGGGACGAAA GGCATGGCGA  
 CGTCTCCGTT TGCTCCTGT TCAGCCCGCC CCCCTGCTTT CCGTACCGCT  
  
 23851 CTACCTAGAT GTGGGAGACG ACGTGCTGTT GAAGCATCTG CAGCGCCAGT  
 GATGGATCTA CACCCCTCTGC TGCACGACAA CTTCTGAGAC GTCGCGGTCA  
  
 23901 GCGCCATTAT CTGCGACGCG TTGCAAGAGC GCAGCGATGT GCCCCTCGCC  
 CGCGGTAATA GACGCTGCGC AACGTTCTCG CGTCGCTACA CGGGGAGCGG  
  
 23951 ATAGCGGATG TCAGCCTTGC CTACGAACGC CACCTATTCT CACCGCGCGT  
 TATCGCCTAC AGTCGGAACG GATGCTTGC GGTGGATAAGA GTGGCGCGCA

FIG. 10A-30

24001 ACCCCCCAAA CGCCAAGAAA ACGGCACATG CGAGCCCAAC CCGCGCCTCA  
 TGGGGGGTTT GCGGTTCTT TGCCGTGTAC GCTCGGGTTG GGCGCGGAGT  
  
 24051 ACTTCTACCC CGTATTGCC GTGCCAGAGG TGCTTGCAC CTATCACATC  
 TGAAGATGGG GCATAAACGG CACGGTCTCC ACGAACGGTG GATAGTGTAG  
  
 24101 TTTTTCCAAA ACTGCAAGAT ACCCCTATCC TGCCGTGCCA ACCGCAGCCG  
 AAAAAGGTTT TGACGTTCTA TGGGGATAGG ACGGCACGGT TGGCGTCGGC  
  
 24151 AGCGGACAAG CAGCTGGCCT TGCAGCAGGG CGCTGTCATA CCTGATATCG  
 TCGCCTGTT GTCGACCGGA ACGCCGTCCC GCGACAGTAT GGACTATAGC  
  
 24201 CCTCGCTCAA CGAAGTGCCA AAAATCTTG AGGGTCTTGG ACGCGACGAG  
 GGAGCGAGTT GCTTCACGGT TTTAGAAC TCCCAGAAC TGCCTGCTC  
  
 24251 AAGCGCGCGG CAAACGCTCT GCAACAGGAA AACAGCGAAA ATGAAAGTCA  
 TTCGCGCGCC GTTTGCAGA CGTTGTCCTT TTGTCGCTTT TACTTCAGT  
  
 24301 CTCTGGAGTG TTGGTGGAAC TCGAGGGTGA CAACGCGCGC CTAGCCGTAC  
 GAGACCTCAC AACACCTTG AGCTCCCAGT GTTGCAGCGCG GATCGGCATG  
  
 24351 TAAAACGCAG CATCGAGGTC ACCCACTTG CCTACCCGGC ACTTAACCTA  
 ATTTTGCAGC GTAGCTCCAG TGGGTGAAAC GGATGGGCCG TGAATTGGAT  
  
 24401 CCCCCCAAGG TCATGAGCAC AGTCATGAGT GAGCTGATCG TGCGCCGTGC  
 GGGGGGTTCC AGTACTCGTG TCAGTACTCA CTCGACTAGC ACGCGGCACG  
  
 24451 GCAGCCCCCTG GAGAGGGATG CAAATTGCA AGAACAAACA GAGGAGGGCC  
 CGTCGGGGAC CTCTCCCTAC GTTTAACGT TCTTGTGTTGT CTCCTCCGG  
  
 24501 TACCCGCAGT TGGCGACGAG CAGCTAGCGC GCTGGCTTCA AACGCGCGAG  
 ATGGCGTCA ACCGCTGCTC GTCGATCGCG CGACCAGT TTGCGCGCTC  
  
 24551 CCTGCCGACT TGGAGGAGCG ACGCAAACTA ATGATGGCCG CAGTGCTCGT  
 GGACGGCTGA ACCTCCTCGC TGCGTTGAT TACTACCGGC GTCACGAGCA  
  
 24601 TACCGTGGAG CTTGAGTGCA TGCAGCGGTT CTTTGCTGAC CCGGAGATGC  
 ATGGCACCTC GAACTCACGT ACGTCGCCAA GAAACGACTG GGCCTCTACG  
  
 24651 AGCGCAAGCT AGAGGAAACA TTGCACTACA CCTTTCGACA GGGCTACGTA  
 TCGCGTTCGA TCTCCTTGT AACGTGATGT GGAAAGCTGT CCCGATGCAT  
  
 24701 CGCCAGGCCT GCAAGATCTC CAACGTGGAG CTCTGCAACC TGGTCTCCTA  
 GCGGTCCCGGA CGTTCTAGAG GTTGCACCTC GAGACGTTGG ACCAGAGGAT  
  
 24751 CCTTGGATT TTGCACGAAA ACCGCCTTGG GCAAAACGTG CTTCATTCCA  
 GGAACCTTAA AACGTGCTTT TGGCGGAACC CGTTTGAC GAAGTAAGGT

FIG. 10A-31

24801 CGCTCAAGGG CGAGGCGCGC CGCGACTACG TCCGCGACTG CGTTTACTTA  
GCGAGTTCCC GCTCCGCGCG GCGCTGATGC AGGCCTGAC GCAAATGAAT

24851 TTTCTATGCT ACACCTGGCA GACGGCCATG GGCCTTGGC AGCAGTGCTT  
AAAGATACGA TGTGGACCGT CTGCCGGTAC CCGCAAACCG TCGTCACGAA

24901 GGAGGAGTGC AACCTCAAGG AGCTGCAGAA ACTGCTAAAG CAAAACATTGA  
CCTCCTCACG TTGGAGTTCC TCGACGTCTT TGACGATTTC GTTTGAAC

24951 AGGACCTATG GACGGCCTTC AACGAGCGCT CCGTGGCCGC GCACCTGGCG  
TCCTGGATAC CTGCCGGAAG TTGCTCGCGA GGCACCGGCG CGTGGACCGC

25001 GACATCATT TCCCCGAACG CCTGCTTAAA ACCCTGCAAC AGGGTCTGCC  
CTGTAGTAAA AGGGGCTTGC GGACGAATT TGGAACGTTG TCCCAGACGG

25051 AGACTTCACC AGTCAAAGCA TGTTGCAGAA CTTTAGGAAC TTTATCCTAG  
TCTGAAGTGG TCAGTTCGT ACAACGTCTT GAAATCCTTG AAATAGGATC

25101 AGCGCTCAGG AATCTGCC C GCCACCTGCT GTGCACTTCC TAGCGACTTT  
TCGCGAGTCC TTAGAACGGG CGGTGGACGA CACGTGAAGG ATCGCTGAAA

25151 GTGCCCATTA AGTACCGCGA ATGCCCTCCG CCGCTTGGG GCCACTGCTA  
CACGGGTAAT TCATGGCGCT TACGGGAGGC GGCGAAACCC CGGTGACGAT

25201 CCTTCTGCAG CTAGCCAAC ACCTTGCCTA CCACTCTGAC ATAATGGAAG  
GGAAGACGTC GATCGGTTGA TGGAACGGAT GGTGAGACTG TATTACCTTC

25251 ACGTGAGCGG TGACGGTCTA CTGGAGTGTG ACTGTCGCTG CAACCTATGC  
TGCACTCGCC ACTGCCAGAT GACCTCACAG TGACAGCGAC GTTGGATACG

25301 ACCCGCACC GCTCCCTGGT TTGCAATTG CAGCTGCTTA ACGAAAGTCA  
TGGGGCGTGG CGAGGGACCA AACGTTAACG GTCGACGAAT TGCTTCAGT

25351 AATTATCGGT ACCTTGAGC TGCAAGGTCC CTCGCCTGAC GAAAAGTCCG  
TTAATAGCCA TGGAAACTCG ACGTCCCAGG GAGCGGACTG CTTTCAGGC

25401 CGGCTCCGGG GTTGAAACTC ACTCCGGGGC TGTGGACGTC GGCTTACCTT  
GCCGAGGCC CAACTTGAG TGAGGCCCCG ACACCTGCAG CCGAATGGAA

25451 CGCAAATTG TACCTGAGGA CTACCACGCC CACGAGATTA GGTTCTACGA  
GCGTTAACAC ATGGACTCCT GATGGTGCAG GTGCTCTAAT CCAAGATGCT

25501 AGACCAATCC CGCCCGCTA ATGCGGAGCT TACCGCCTGC GTCATTACCC  
TCTGGTTAGG GCGGGCGGAT TACGCCTCGA ATGGCGGACG CAGTAATGGG

25551 AGGGCCACAT TCTTGGCCAA TTGCAAGCCA TCAACAAAGC CCGCCAAGAG  
TCCCGGTGTA AGAACCGGTT AACGTTCGGT AGTTGTTCG GGCGGTTCTC

FIG. 10A-32

25601 TTTCTGCTAC GAAAGGGACG GGGGGTTTAC TTGGACCCCC AGTCCGGCGA  
         AAAGACGATG CTTTCCTGC CCCCCAAATG AACCTGGGG TCAGGCCGCT  
  
 25651 GGAGCTCAAC CCAATCCCC CGCCGCCGCA GCCCTATCAG CAGCAGCCGC  
         CCTCGAGTTG GGTTAGGGGG GC GGCGGGCGT CGGGATAGTC GTCGTGGCG  
  
 25701 GGGCCCTTGC TTCCCAGGAT GGCACCCAAA AAGAAGCTGC AGCTGCCGCC  
         CCCGGGAACG AAGGGTCCTA CC GTGGGTTT TTCTTCGACG TCGACGGCGG  
  
 25751 GCCACCCACG GACGAGGAGG AATACTGGGA CAGTCAGGCA GAGGAGGTTT  
         CGGTGGGTGC CTGCTCCTCC TTATGACCCT GTCAGTCCGT CTCCTCCAAA  
  
 25801 TGGACGAGGA GGAGGAGGAC ATGATGGAAG ACTGGGAGAG CCTAGACGAG  
         ACCTGCTCCT CCTCCTCCTG TACTACCTTC TGACCCCTCTC GGATCTGCTC  
  
 25851 GAAGCTTCCG AGGT CGAAGA GGTGTCAGAC GAAACACCGT CACCCCTCGGT  
         CTTCGAAGGC TCCAGCTTCT CCACAGTCTG CTTTGTGGCA GTGGGAGCCA  
  
 25901 CGCATTCCCC TCGCCGGCGC CCCAGAAATC GGCAACCGGT TCCAGCATGG  
         GCGTAAGGGG AGCGGGCGCG GGGTCTTAG CCGTTGGCCA AGGTCGTACC  
  
 25951 CTACAACCTC CGCTCCTCAG GCGCCGCCGG CACTGCCCGT TCGCCGACCC  
         GATGTTGGAG GCGAGGAGTC CGCGGCCGCC GTGACGGCA AGCGGCTGGG  
  
 26001 AACCGTAGAT GGGACACCAC TGGAACCAAGG GCCGGTAAGT CCAAGCAGCC  
         TTGGCATCTA CCCTGTGGTG ACCTTGGTCC CGGCCATTCA GGTCGTGCG  
  
 26051 GCCGCCGTTA GCCCAAGAGC AACAAACAGCG CCAAGGCTAC CGCTCATGGC  
         CGGCCGCAAT CGGGTTCTCG TTGTTGTCGC GGTTCCGATG GCGAGTACCG  
  
 26101 GCGGGCACAA GAACGCCATA GTTGCTTGCT TGCAAGACTG TGGGGGCAAC  
         CGCCCGTGTGTT CTTGCGGTAT CAACGAACGA AC GTTCTGAC ACCCCCCGTTG  
  
 26151 ATCTCCTTCG CCCGCCGCTT TCTTCTCTAC CATCACGGCG TGGCCTTCCC  
         TAGAGGAAGC GGGCGCGAA AGAAGAGATG GTAGTGCCGC ACCGGAAGGG  
  
 26201 CCGTAACATC CTGCATTACT ACCGT CATCT CTACAGCCCA TACTGCACCG  
         GGCATTGTAG GACGTAATGA TGGCAGTAGA GATGTGGGT ATGACGTGGC  
  
 26251 GCGGCAGCGG CAGCAACAGC AGCGGCCACA CAGAAGCAA GGCGACCGGA  
         CGCCGTCGCC GTCGTTGTCG TCGCCGGTGT GTCTCGTTT CCGCTGGCCT  
  
 26301 TAGCAAGACT CTGACAAAGC CCAAGAAATC CACAGCGCG GCAGCAGCAG  
         ATCGTTCTGA GACTGTTCG GGTTCTTAG GTGTCGCCGC CGTCGTGTC  
  
 26351 GAGGAGGAGC GCTGCGTCTG GCGCCCAACG AACCCGTATC GACCCGCGAG  
         CTCCTCCTCG CGACGCAGAC CGCGGGTTGC TTGGGCATAG CTGGCGCTC

FIG. 10A-33

26401 CTTAGAAACA GGATTTTCC CACTCTGTAT GCTATATTTC AACAGAGCAG  
 GAATCTTGT CCTAAAAAGG GTGAGACATA CGATATAAAG TTGTCTCGTC  
  
 26451 GGGCCAAGAA CAAGAGCTGA AAATAAAAAA CAGGTCTCTG CGATCCCTCA  
 CCCGGTTCTT GTTCTCGACT TTTATTTTT GTCCAGAGAC GCTAGGGAGT  
  
 26501 CCCGCAGCTG CCTGTATCAC AAAAGCGAAG ATCAGCTTCG GCGCACGCTG  
 GGGCGTCGAC GGACATAGTG TTTTCGCTTC TAGTCGAAGC CGCGTGCAC  
  
 26551 GAAGACGCGG AGGCTCTCTT CAGTAAATAC TGCGCGCTGA CTCTTAAGGA  
 CTTCTGCGCC TCCGAGAGAA GTCATTTATG ACGCGCGACT GAGAATTCCCT  
  
 26601 CTAGTTTCGC GCCCTTTCTC AAATTTAACG GCGAAAACTA CGTCATCTCC  
 GATCAAAGCG CGGGAAAGAG TTTAAATTAG CGCTTTGAT GCAGTAGAGG  
  
 26651 AGCGGCCACA CCCGGCGCCA GCACCTGTTG TCAGCGCCAT TATGAGCAAG  
 TCGCCGGTGT GGGCCGCGGT CGTGGACAAC AGTCGCGGTA ATACTCGTTC  
  
 26701 GAAATTCCCA CGCCCTACAT GTGGAGTTAC CAGCCACAAA TGGGACTTGC  
 CTTTAAGGGT GCGGGATGTA CACCTCAATG GTCGGTGTGTT ACCCTGAACG  
  
 26751 GGCTGGAGCT GCCCAAGACT ACTCAACCCG AATAAACTAC ATGAGCGCGG  
 CCGACCTCGA CGGGTTCTGA TGAGTTGGC TTATTTGATG TACTCGCGCC  
  
 26801 GACCCCACAT GATATCCCGG GTCAACGGAA TACGCGCCCA CCGAAACCGA  
 CTGGGGTGTGTA CTATAGGGCC CAGTTGCCTT ATGCGCGGGT GGCTTGGCT  
  
 26851 ATTCTCCTGG AACAGGCCGC TATTACCACC ACACCTCGTA ATAACCTTAA  
 TAAGAGGACC TTGTCCGCCG ATAATGGTGG TGTGGAGCAT TATTGGAATT  
  
 26901 TCCCCGTAGT TGGCCCGCTG CCCTGGTGTGTA CCAGGAAAGT CCCGCTCCCA  
 AGGGGCATCA ACCGGGCGAC GGGACCACAT GGTCTTTCA GGGCGAGGGT  
  
 26951 CCACTGTGGT ACTTCCCAGA GACGCCAGG CCGAAGTTCA GATGACTAAC  
 GGTGACACCA TGAAGGGTCT CTGCGGGTCC GGCTTCAAGT CTACTGATTG  
  
 27001 TCAGGGGCGC AGCTTGCAGG CGGCTTCGT CACAGGGTGC GGTCGCCCGG  
 AGTCCCCGCG TCGAACGCC CCGAAAGCA GTGTCCCACG CCAGCGGGCC  
  
 27051 GCAGGGTATA ACTCACCTGA CAATCAGAGG GCGAGGTATT CAGCTAACG  
 CGTCCCATAT TGAGTGGACT GTTAGTCTCC CGCTCCATAA GTCGAGTTGC  
  
 27101 ACGAGTCGGT GAGCTCCTCG CTTGGTCTCC GTCCGGACGG GACATTTCAG  
 TGCTCAGCCA CTCGAGGAGC GAACCAGAGG CAGGCCTGCC CTGTAAAGTC  
  
 27151 ATCGGGCGGC CGGGCCGCTC TTCATTACAG CCTCGTCAGG CAATCCTAAC  
 TAGCCGCCGC GGCCGGCGAG AAGTAAGTGC GGAGCAGTCC GTTAGGATTG

FIG. 10A-34

27201 TCTGCAGACC TCGTCCTCTG AGCCGCGCTC TGGAGGCATT GGAACCTCTGC  
 AGACGTCTGG AGCAGGAGAC TCGGCCGAG ACCTCCGTAA CCTTGAGACG  
  
 27251 AATTTATTGA GGAGTTTGTG CCATCGGTCT ACTTTAACCC CTTCTCGGGA  
 TTAAATAACT CCTCAAACAC GGTAGCCAGA TGAAATTGGG GAAGAGCCCT  
  
 27301 CCTCCCGGCC ACTATCCGGA TCAATTATT CCTAACCTTG ACGCGGTAAA  
 GGAGGGCCGG TGATAGGCCT AGTTAAATAA GGATTGAAAC TGCGCCATTT  
  
 27351 GGACTCGGCG GACGGCTACG ACTGAATGTT AAGTGGAGAG GCAGAGCAAC  
 CCTGAGCCGC CTGCCGATGC TGACTTACAA TTCACCTCTC CGTCTCGTTG  
  
 27401 TGCGCCTGAA ACACCTGGTC CACTGTCGCC GCCACAAGTG CTTTGCCCGC  
 ACGCGGACTT TGTGGACCAAG GTGACAGCGG CGGTGTTCAC GAAACGGGCG  
  
 27451 GACTCCGGTG AGTTTGCTA CTTTGAATTG CCCGAGGATC ATATCGAGGG  
 CTGAGGCCAC TCAAAACGAT GAAACTTAAC GGGCTCCTAG TATAGCTCCC  
  
 27501 CCCGGCGCAC GGCgtCCGGC TTACCGCCCCA GGGAGAGCTT GCCCGTAGCC  
 GGGCCGCGTG CCGCAGGCCG AATGGCGGGT CCCTCTCGAA CGGGCATCGG  
  
 27551 TGATTCGGGA GTTTACCCAG CGCCCCCTGC TAGTTGAGCG GGACAGGGGA  
 ACTAAGCCCT CAAATGGTC GCGGGGACG ATCAACTCGC CCTGTCCCC  
  
 27601 CCCTGTGTT TCACGTGAT TTGCAACTGT CCTAACCCCTG GATTACATCA  
 GGGACACAAG AGTGACACTA AACGTTGACA GGATTGGGAC CTAATGTAGT  
  
 27651 AGATCTTGT TGCCATCTCT GTGCTGAGTA TAATAAATAC AGAAATTAAA  
 TCTAGAAACA ACGGTAGAGA CACGACTCAT ATTATTATG TCTTTAATTT  
  
 27701 ATATACTGGG GCTCCTATCG CCATCCTGTA AACGCCACCG TCTTCACCCG  
 TATATGACCC CGAGGATAGC GGTAGGACAT TTGCGGTGGC AGAAGTGGGC  
  
 27751 CCCAAGCAAA CCAAGGCGAA CCTTACCTGG TACTTTAAC ATCTCTCCCT  
 GGGTCGTTT GGTTCCGCTT GGAATGGACC ATGAAAATTG TAGAGAGGGGA  
  
 27801 CTGTGATTAA CAACAGTTTC AACCCAGACG GAGTGAGTCT ACGAGAGAAC  
 GACACTAAAT GTTGTCAAAG TTGGGTCTGC CTCACTCAGA TGCTCTCTG  
  
 27851 CTCTCCGAGC TCAGCTACTC CATCAGAAAA AACACCACCC TCCTTACCTG  
 GAGAGGCTCG AGTCGATGAG GTAGTCTTT TTGTGGTGGG AGGAATGGAC  
  
 27901 CCGGGAACGT ACGAGTGCCT CACCGGCCGC TGCACCAACAC CTACCGCCTG  
 GGCCCTTGCA TGCTCACGCA GTGGCCGGCG ACGTGGTGTG GATGGCGGAC  
  
 27951 ACCGTAAACC AGACTTTTC CGGACAGACC TCAATAACTC TGTTTACCAAG  
 TGGCATTGAG TCTGAAAAAG GCCTGTCTGG AGTTATTGAG ACAAAATGGTC

FIG. 10A-35

28001 AACAGGAGGT GAGCTTAGAA AACCCCTAGG GTATTAGGCC AAAGGCAG  
 TTGTCCTCCA CTCGAATCTT TTGGGAATCC CATAATCCGG TTTCCCGC  
  
 28051 CTACTGTGGG GTTTATGAAC AATTCAAGCA ACTCTACGGG CTATTCTAAT  
 GATGACACCC CAAATACTTG TTAAGTCGT TGAGATGCC GATAAGATTA  
  
 28101 TCAGGTTTCT CTAGAATCGG GGTTGGGGTT ATTCTCTGTC TTGTGATTCT  
 AGTCCAAAGA GATCTTAGCC CCAACCCCAA TAAGAGACAG AACACTAAGA  
  
 28151 CTTTATTCTT ATACTAACGC TTCTCTGCCT AAGGCTCGCC GCCTGCTGTG  
 GAAATAAGAA TATGATTGCG AAGAGACGGA TTCCGAGCGG CGGACGACAC  
  
 28201 TGCACATTTG CATTATTGT CAGCTTTTA AACGCTGGGG TCGCCACCCA  
 ACGTGAAAC GTAAATAACA GTCGAAAAAT TTGCGACCCC AGCGGTGGGT  
  
 28251 AGATGATTAG GTACATAATC CTAGGTTAC TCACCCCTGC GTCAGCCCAC  
 TCTACTAATC CATGTATTAG GATCCAAATG AGTGGGAACG CAGTCGGGTG  
  
 28301 GGTACCACCC AAAAGGTGGA TTTTAAGGAG CCAGCCTGTA ATGTTACATT  
 CCATGGTGGG TTTTCCACCT AAAATTCCCTC GGTCGGACAT TACAATGTAA  
  
 28351 CGCAGCTGAA GCTAATGAGT GCACCACTCT TATAAAATGC ACCACAGAAC  
 GCGTCGACTT CGATTACTCA CGTGGTGAGA ATATTTACG TGGTGTCTTG  
  
 28401 ATGAAAAGCT GCTTATTGCG CACAAAAACA AAATTGGCAA GTATGCTGTT  
 TACTTTCGA CGAATAAGCG GTGTTTTGT TTTAACCGTT CATAKGACAA  
  
 28451 TATGCTATTG GGCAGCCAGG TGACACTACA GAGTATAATG TTACAGTTTT  
 ATACGATAAA CCGTCGGTCC ACTGTGATGT CTCATATTAC AATGTCAAAA  
  
 28501 CCAGGGTAAA AGTCATAAAA CTTTTATGTA TACTTTCCA TTTTATGAAA  
 GGTCCCATT TCAGTATTTC GAAAATACAT ATGAAAAGGT AAAATACTTT  
  
 28551 TGTGCGACAT TACCATGTAC ATGAGCAAAC AGTATAAGTT GTGGCCCCCA  
 ACACGCTGTA ATGGTACATG TACTCGTTG TCATATTCAA CACCGGGGGT  
  
 28601 CAAAATTGTG TGGAAAACAC TGGCACTTTC TGCTGCACTG CTATGCTAAT  
 GTTTAACAC ACCTTTGTG ACCGTGAAAG ACGACGTGAC GATACGATTA  
  
 28651 TACAGTGCTC GCTTGGTCT GTACCCTACT CTATATTAAA TACAAAAGCA  
 ATGTCACGAG CGAAACCAGA CATGGGATGA GATATAATTG ATGTTTCGT  
  
 28701 GACGCAGCTT TATTGAGGAA AAGAAAATGC CTTAATTAC TAAGTTACAA  
 CTGCGTCGAA ATAACCTCCTT TTCTTTACG GAATTAAATG ATTCAATGTT  
  
 28751 AGCTAATGTC ACCACTAACT GCTTTACTCG CTGCTTGCAA AACAAATTCA  
 TCGATTACAG TGGTGATTGA CGAAATGAGC GACGAACGTT TTGTTAAAGT

FIG. 10A-36

28801 AAAAGTTAGC ATTATAATTA GAATAGGATT TAAACCCCCC GGTCAATTCC  
 TTTTCAATCG TAATATTAAT CTTATCCTAA ATTTGGGGGG CCAGTAAAGG  
  
 28851 TGCTCAATAC CATTCCCCTG AACAAATTGAC TCTATGTGGG ATATGCTCCA  
 ACGAGTTATG GTAAGGGGAC TTGTTAAGTG AGATACACCC TATACGAGGT  
  
 28901 GCGCTACAAC CTTGAAGTCA GGCTTCCTGG ATGTCAGCAT CTGACTTTGG  
 CGCGATGTTG GAACTTCAGT CCGAAGGACC TACAGTCGTA GACTGAAACC  
  
 28951 CCAGCACCTG TCCCAGGGAT TTGTTCCAGT CCAAACACAG CGACCCACCC  
 GGTCTGGAC AGGGCGCCTA AACAAAGGTCA GGTTGATGTC GCTGGGTGGG  
  
 29001 TAACAGAGAT GACCAACACA ACCAACCGCGG CCGCCGCTAC CGGACTTACA  
 ATTGTCTCTA CTGGTTGTGT TGGTTGCGCC GGCGGCGATG GCCTGAATGT  
  
 29051 TCTACCACAA ATACACCCCA AGTTTCTGCC TTTGTCAATA ACTGGGATAA  
 AGATGGTGT TATGTGGGGT TCAAAGACGG AAACAGTTAT TGACCCCTATT  
  
 29101 CTTGGGCATG TGGTGGTTCT CCATAGCGCT TATGTTGTA TGCCTTATTA  
 GAACCCGTAC ACCACCAAGA GGTATCGCGA ATACAAACAT ACGGAATAAT  
  
 29151 TTATGTGGCT CATCTGCTGC CTAAAGCGCA AACCGCCCCG ACCACCCATC  
 AATACACCGA GTAGACGACG GATTCGCGT TTGCGCGGGC TGGTGGGTAG  
  
 29201 TATAGTCCCA TCATTGTGCT ACACCCAAAC AATGATGGAA TCCATAGATT  
 ATATCAGGGT AGTAACACGA TGTGGGTTTG TTACTACCTT AGGTATCTAA  
  
 29251 GGACGGACTG AAACACATGT TCTTTCTCT TACAGTATGA TTAAATGAGA  
 CCTGCCTGAC TTTGTGTACA AGAAAAGAGA ATGTCAACT AATTACTCT  
  
 29301 CATGATTCCCT CGAGTTTTA TATTACTGAC CCTTGTGCG CTTTTTGTG  
 GTACTAAGGA GCTAAAAAT ATAATGACTG GGAACAAACGC GAAAAAACAC  
  
 29351 CGTGCTCCAC ATTGGCTGCG GTTTCTCACA TCGAAGTAGA CTGCATTCCA  
 GCACGAGGTG TAACCGACGC CAAAGAGTGT AGCTTCATCT GACGTAAGGT  
  
 29401 GCCTTCACAG TCTATTGCT TTACGGATTT GTCACCCCTCA CGCTCATCTG  
 CGGAAGTGT AGATAAACGA AATGCCTAAA CAGTGGGAGT GCGAGTAGAC  
  
 29451 CAGCCTCATC ACTGTGGTCA TCGCCTTAT CCAGTGCATT GACTGGGTCT  
 GTCGGAGTAG TGACACCAGT AGCGGAAATA GGTCACGTAA CTGACCCAGA  
  
 29501 GTGTGCGCTT TGCATATCTC AGACACCATC CCCAGTACAG GGACAGGACT  
 CACACCGAA ACGTATAGAG TCTGTGGTAG GGGTCATGTC CCTGTCCTGA  
  
 29551 ATAGCTGAGC TTCTTAAAT TCTTTAATTA TGAAATTAC TGTGACTTTT  
 TATCGACTCG AAGAATCTTA AGAAATTAAT ACTTTAAATG AACTGAAAA

29601 CTGCTGATTA TTTGCACCCCT ATCTGCGTT TGTTCCCCGA CCTCCAAGCC  
 GACGACTAAT AAACGTGGGA TAGACGAAA ACAAGGGGCT GGAGGTCGG  
  
 29651 TCAAAGACAT ATATCATGCA GATTCACTCG TATATGGAAT ATTCCAAGTT  
 AGTTTCTGTA TATAGTACGT CTAAGTGAGC ATATACTTA TAAGGTCAA  
  
 29701 GCTACAATGA AAAAAGCGAT CTTTCCGAAG CCTGGTTATA TGCAATCATC  
 CGATGTTACT TTTTCGCTA GAAAGGCTTC GGACCAATAT ACGTTAGTAG  
  
 29751 TCTGTTATGG TGTTCTGCAG TACCATCTTA GCCCTAGCTA TATATCCCTA  
 AGACAATACC ACAAGACGTC ATGGTAGAAT CGGGATCGAT ATATAGGGAT  
  
 29801 CCTTGACATT GGCTGGAACG CAATAGATGC CATGAACACAC CCAACTTCC  
 GGAACGTAA CCGACCTTGC GTTATCTACG GTACTTGGTG GGTTGAAAGG  
  
 29851 CCGCGCCCAGC TATGCTTCCA CTGCAACAAG TTGTTGCCGG CGGCTTGTC  
 GGCGCGGGCG ATACGAAGGT GACGTTGTT AACAACGGCC GCCGAAACAG  
  
 29901 CCAGCCAATC AGCCTCGCCC ACCTTCTCCC ACCCCCCACTG AAATCAGCTA  
 GGTCGGTTAG TCGGAGCGGG TGGAAGAGGG TGGGGGTGAC TTTAGTCGAT  
  
 29951 CTTTAATCTA ACAGGGAGGAG ATGACTGACA CCCTAGATCT AGAAATGGAC  
 GAAATTAGAT TGTCCCTCCTC TACTGACTGT GGGATCTAGA TCTTTACCTG  
  
 30001 GGAATTATTA CAGAGCAGCG CCTGCTAGAA AGACGCAGGG CAGCGGCCGA  
 CCTTAATAAT GTCTCGTCGC GGACGATCTT TCTGCGTCCC GTCGCCGGCT  
  
 30051 GCAACAGCGC ATGAATCAAG AGCTCCAAGA CATGGTTAAC TTGCACCAAGT  
 CGTTGTGCGC TACTTAGTTC TCGAGGTTCT GTACCAATTG AACGTGGTCA  
  
 30101 GCAAAAGGGG TATCTTTGT CTCGTAAAGC AGGCCAAAGT CACCTACGAC  
 CGTTTCCCCC ATAGAAAACA GAGCATTGCG TCCGGTTCA GTGGATGCTG  
  
 30151 AGTAATACCA CGGGACACCG CCTTAGCTAC AAGTTGCCAA CCAAGCGTCA  
 TCATTATGGT GGCTCGTGGC GGAATCGATG TTCAACGGTT GGTCGCGAGT  
  
 30201 GAAATTGGTG GTCATGGTGG GAGAAAAGCC CATTACCATA ACTCAGCACT  
 CTTAACACAC CAGTACCAACC CTCTTTCGG GTAATGGTAT TGAGTCGTGA  
  
 30251 CGGTAGAAAC CGAAGGCTGC ATTCACTCAC CTTGTCAAGG ACCTGAGGAT  
 GCCATCTTG GCTTCCGACG TAAGTGAGTG GAACAGTTCC TGGACTCCTA  
  
 30301 CTCTGCACCC TTATTAAGAC CCTGTGCGGT CTCAAAGATC TTATTCCCTT  
 GAGACGTGGG AATAATTCTG GGACACGCCA GAGTTCTAG AATAAGGGAA  
  
 30351 TAACTAATAA AAAAAAATAA TAAAGCATCA CTTACTTAAA ATCAGTTAGC  
 ATTGATTATT TTTTTTATT ATTCGTAGT GAATGAATTT TAGTCAATCG

FIG. 10A-38

30401 AAATTCTGT CCAGTTTATT CAGCAGCACC TCCTGCCCT CCTCCCAGCT  
 TTTAAAGACA GGTCAAATAA GTGTCGTGG AGGAACGGGA GGAGGGTCGA  
  
 30451 CTGGTATTGC AGCTTCCTCC TGGCTGCAA AATCTAAATG  
 GACCATAACG TCGAAGGAGG ACCGACGTT GAAAGAGGTG TTAGATTTAC  
  
 30501 GAATGTCAGT TTCCTCCTGT TCCTGTCCAT CCGCACCCAC TATCTTCATG  
 CTTACAGTCA AAGGAGGACA AGGACAGGTA GGCGTGGGTG ATAGAAGTAC  
  
 30551 TTGTTGCAGA TGAAGCGCGC AAGACCGTCT GAAGATAACCT TCAACCCCGT  
 AACAACGTCT ACTTCGCGCG TTCTGGCAGA CTTCTATGGA AGTTGGGCA  
  
 30601 GTATCCATAT GACACGGAAA CCGGTCCCTCC AACTGTGCCT TTTCTTACTC  
 CATAGGTATA CTGTGCCTTT GGCCAGGAGG TTGACACGGA AAAGAATGAG  
  
 30651 CTCCCTTGT ATCCCCAAT GGGTTCAAG AGAGTCCCCC TGGGGTACTC  
 GAGGGAAACA TAGGGGGTTA CCCAAAGTTC TCTCAGGGGG ACCCCATGAG  
  
 30701 TCTTGCGCC TATCCGAACC TCTAGTTACC TCCAATGGCA TGCTTGCCT  
 AGAAACGCGG ATAGGCTTGG AGATCAATGG AGGTTACCGT ACGAACCGCA  
  
 30751 CAAAATGGGC AACGGCCTCT CTCTGGACGA GGCGGGCAAC CTTACCTCCC  
 GTTTTACCCG TTGCCGGAGA GAGACCTGCT CGGGCCGTTG GAATGGAGGG  
  
 30801 AAAATGTAAC CACTGTGAGC CCACCTCTCA AAAAAACCAA GTCAAACATA  
 TTTTACATTG GTGACACTCG GGTGGAGAGT TTTTTGGTT CAGTTGTAT  
  
 30851 AACCTGGAAA TATCTGCACC CCTCACAGTT ACCTCAGAAG CCCTAACTGT  
 TTGGACCTTT ATAGACGTGG GGAGTGTCAA TGGAGTCTTC GGGATTGACA  
  
 30901 GGCTGCCGCC GCACCTCTAA TGGTCGCGGG CAACACACTC ACCATGCAAT  
 CCGACGGCGG CGTGGAGATT ACCAGCGCCC GTTGTGTGAG TGGTACGTTA  
  
 30951 CACAGGCCCC GCTAACCGTG CACGACTCCA AACTTAGCAT TGCCACCCAA  
 GTGTCCGGGG CGATTGGCAC GTGCTGAGGT TTGAATCGTA ACGGTGGGTT  
  
 31001 GGACCCCTCA CAGTGTAGA AGGAAAGCTA GCCCTGCAAA CATCAGGCC  
 CCTGGGGAGT GTCACAGTCT TCCTTCGAT CGGGACGTTT GTAGTCCGGG  
  
 31051 CCTCACCAACC ACCGATAGCA GTACCCTTAC TATCACTGCC TCACCCCTT  
 GGAGTGGTGG TGGCTATCGT CATGGGAATG ATAGTGACGG AGTGGGGGAA  
  
 31101 TAACTACTGC CACTGGTAGC TTGGGCATTG ACTTGAAAGA GCCCATTAT  
 ATTGATGACG GTGACCATCG AACCCGTAAC TGAACCTTCT CGGGTAAATA  
  
 31151 ACACAAAATG GAAAACCTAGG ACTAAAGTAC GGGGCTCCTT TGCATGTAAC  
 TGTGTTTAC CTTTGATCC TGATTCATG CCCCCGAGGAA ACGTACATTG

FIG. 10A-39

31201 AGACGACCTA AACACTTGA CCGTAGCAAC TGGTCCAGGT GTGACTATTA  
 TCTGCTGGAT TTGTGAAACT GGCATCGTTG ACCAGGTCCA CACTGATAAT  
  
 31251 ATAATACTTC CTTGCAAAC ACTAAAGTTACTG GAGCCTTGGG TTTTGATTCA  
 TATTATGAAG GAACGTTGA TTTCAATGAC CTCGGAACCC AAAACTAAGT  
  
 31301 CAAGGCAATA TGCAACTTAA TGTAGCAGGA GGACTAAGGA TTGATTCTCA  
 GTTCCGTTAT ACGTTGAATT ACATCGTCCT CCTGATTCCCT AACTAAGAGT  
  
 31351 AAACAGACGC CTTATACTTG ATGTTAGTTA TCCGTTGAT GCTCAAAACC  
 TTTGTCTGCG GAATATGAAC TACAATCAAT AGGCAAACCA CGAGTTTGG  
  
 31401 AACTAAATCT AAGACTAGGA CAGGGCCCTC TTTTATAAAA CTCAGCCCAC  
 TTGATTTAGA TTCTGATCCT GTCCCGGGAG AAAAATATTT GAGTCGGGTG  
  
 31451 AACTTGGATA TTAACTACAA CAAAGGCCTT TACTTGTAA CAGCTTCAAA  
 TTGAACCTAT AATTGATGTT GTTTCCGGAA ATGAACAAAT GTCGAAGTTT  
  
 31501 CAATTCCAAA AAGCTTGAGG TTAACCTAACG CACTGCCAAG GGGTTGATGT  
 GTTAAGGTTT TTCGAACTCC AATTGGATTG GTGACGGTTC CCCAACTACA  
  
 31551 TTGACGCTAC AGCCATAGCC ATTAATGCAG GAGATGGGCT TGAATTTGGT  
 AACTGCGATG TCGGTATCGG TAATTACGTC CTCTACCCGA ACTTAAACCA  
  
 31601 TCACCTAATG CACCAAACAC AAATCCCCTC AAAACAAAAA TTGGCCATGG  
 AGTGGATTAC GTGGTTGTG TTTAGGGGAG TTTGTTTT AACCAGGTACC  
  
 31651 CCTAGAATTT GATTCAAACAA AGGCTATGGT TCCTAAACTA GGAACCTGGCC  
 GGATCTTAAA CTAAGTTGT TCCGATACCA AGGATTGAT CCTTGACCGG  
  
 31701 TTAGTTTGA CAGCACAGGT GCCATTACAG TAGGAAACAA AAATAATGAT  
 AATCAAAACT GTCGTGTCCA CGGTAATGTC ATCCTTGTT TTTATTACTA  
  
 31751 AAGCTAACTT TGTGGACCAC ACCAGCTCCA TCTCCTAACT GTAGACTAAA  
 TTCGATTGAA ACACCTGGTG TGGTCGAGGT AGAGGATTGA CATCTGATTT  
  
 31801 TGCAGAGAAA GATGCTAAC CCACTTTGGT CTTAACAAAA TGTGGCAGTC  
 ACGTCTCTT CTACGATTTG AGTGAACCA GAATTGTTT ACACCGTCAG  
  
 31851 AAATACTTGC TACAGTTCA GTTTGGCTG TTAAAGGCAG TTTGGCTCCA  
 TTTATGAACG ATGTCAAAGT CAAAACCGAC AATTTCGTC AAACCGAGGT  
  
 31901 ATATCTGGAA CAGTTCAAAG TGCTCATCTT ATTATAAGAT TTGACGAAAA  
 TATAGACCTT GTCAAGTTTC ACGAGTAGAA TAATATTCTA AACTGCTTTT  
  
 31951 TGGAGTGCTA CTAAACAATT CCTTCCTGGA CCCAGAATAT TGGAACTTTA  
 ACCTCACGAT GATTTGTTAA GGAAGGACCT GGGTCTTATA ACCTTGAAAT

FIG. 10A-40

32001 GAAATGGAGA TCTTACTGAA GGCACAGCCT ATACAAACGC TGTTGGATTT  
 CTTTACCTCT AGAATGACTT CGGTGTCGGA TATGTTGCG ACAACCTAAA  
  
 32051 ATGCCTAACCC TATCAGCTTA TCCAAAATCT CACGGTAAAAA CTGCCAAAAG  
 TACGGATTGG ATAGTCGAAT AGGTTTAGA GTGCCATTT GACGGTTTC  
  
 32101 TAACATTGTC AGTCAAGTTT ACTTAAACGG AGACAAAAC AAACCTGTAA  
 ATTGTAAACAG TCAGTTCAAA TGAATTGCC TCTGTTTGA TTTGGACATT  
  
 32151 CACTAACCAT TACACTAAAC GGTACACAGG AAACAGGAGA CACAACCTCCA  
 GTGATTGGTA ATGTGATTTG CCATGTGTCC TTTGTCCTCT GTGTTGAGGT  
  
 32201 AGTGCATACT CTATGTCATT TTCATGGGAC TGGTCTGGCC ACAACTACAT  
 TCACGTATGA GATACAGTAA AAGTACCCCTG ACCAGACCGG TGTTGATGTA  
  
 32251 TAATGAAATA TTTGCCACAT CCTCTTACAC TTTTCATAC ATTGCCAAG  
 ATTACTTTAT AACCGGTGTAA GGAGAATGTG AAAAAGTATG TAACGGGTT  
  
 32301 AATAAAGAAT CGTTTGTGTT ATGTTCAAC GTGTTATTT TTCAATTGCA  
 TTATTTCTTA GCAAACACAA TACAAAGTTG CACAAATAAA AAGTTAACGT  
  
 32351 GAAAATTCAG AGTCATTTT CATTCACTAG TATAGCCCCA CCACCACATA  
 CTTTAAAGT TCAGTAAAAA GTAAGTCATC ATATCGGGGT GGTGGTGTAT  
  
 32401 GCTTATACAG ATCACCGTAC CTTAATCAAA CTCACAGAAC CCTAGTATT  
 CGAATATGTC TAGTGGCATG GAATTAGTTT GAGTGTCTTG GGATCATAAG  
  
 32451 AACCTGCCAC CTCCCTCCC ACACACAGAG TACACAGTCC TTTCTCCCCG  
 TTGGACGGTG GAGGGAGGGT TGTGTGTCTC ATGTGTCAAG AAAGAGGGGC  
  
 32501 GCTGGCCTTA AAAAGCATCA TATCATGGGT AACAGACATA TTCTTAGGTG  
 CGACCGGAAT TTTCTGTAGT ATAGTACCCCA TTGTCTGTAT AAGAATCCAC  
  
 32551 TTATATTCCA CACGGTTTCC TGTCGAGCCA AACGCTCATC AGTGATATTA  
 AATATAAGGT GTGCCAAAGG ACAGCTCGGT TTGCGAGTAG TCACTATAAT  
  
 32601 ATAAAATCCC CGGGCAGCTC ACTTAAGTTC ATGTCGCTGT CCAGCTGCTG  
 TATTTGAGGG GCCCGTCGAG TGAATTCAAG TACAGCGACA GGTCGACGAC  
  
 32651 AGCCACAGGC TGCTGTCCAA CTTGCGGTTG CTTAACGGGC GGCGAAGGAG  
 TCGGTGTCCG ACGACAGGTT GAACGCCAAC GAATTGCCCG CCGCTTCCTC  
  
 32701 AAGTCCACGC CTACATGGGG GTAGAGTCAT AATCGTGCAT CAGGATAGGG  
 TTCAGGTGCG GATGTACCCC CATCTCAGTA TTAGCACGTA GTCCTATCCC  
  
 32751 CGGTGGTGCT GCAGCAGCGC GCGAATAAAC TGCTGCGGCC GCCGCTCCGT  
 GCCACACAGA CGTCGTCGCG CGCTTATTTG ACGACGGCGG CGGCGAGGCA

32801 CCTGCAGGAA TACAACATGG CAGTGGTCTC CTCAGCGATG ATTGCGACCG  
 GGACGTCCTT ATGTTGTACC GTCACCAGAG GAGTCGCTAC TAAGCGTGGC  
  
 32851 CCCGCAGCAT AAGGCCCTT GTCCTCCGGG CACAGCAGCG CACCCCTGATC  
 GGGCGTCGTA TTCCCGGGAA CAGGAGGCC CGTGTGTCGC GTGGGACTAG  
  
 32901 TCACTTAAAT CAGCACAGTA ACTGCAGCAC AGCACCAACAA TATTGTTCAA  
 AGTGAATTAA GTCGTGTCAT TGACGTCGTG TCGTGGTGTT ATAACAAGTT  
  
 32951 AATCCCACAG TGCAAGGCGC TGTATCCAAA GCTCATGGCG GGGACCACAG  
 TTAGGGTGTC ACGTTCCGCG ACATAGGTTT CGAGTACCGC CCCTGGTGTC  
  
 33001 AACCCACGTG GCCATCATAAC CACAAGCGCA GGTAGATTAA GTGGCGACCC  
 TTGGGTGCAC CGGTAGTATG GTGTTCGCGT CCATCTAATT CACCGCTGGG  
  
 33051 CTCATAAACA CGCTGGACAT AAACATTACC TCTTTGGCA TGTTGTAATT  
 GAGTATTGT GCGACCTGTA TTTGTAATGG AGAAAACCGT ACAACATTAA  
  
 33101 CACCA CCTCC CGGTACCATA TAAACCTCTG ATTAAACATG GCGCCATCCA  
 GTGGTGGAGG GCCATGGTAT ATTTGGAGAC TAATTTGTAC CGCGGTAGGT  
  
 33151 CCACCATCCT AAACCAGCTG GCCAAAACCT GCCCGCCGGC TATACACTGC  
 GGTGGTAGGA TTTGGTCGAC CGGTTTGGGA CGGGCGGCCG ATATGTGACG  
  
 33201 AGGGAACCGG GACTGGAACA ATGACAGTGG AGAGCCCAGG ACTCGTAACC  
 TCCCTGGCC CTGACCTTGT TACTGTCACC TCTCGGGTCC TGAGCATTGG  
  
 33251 ATGGATCATC ATGCTCGTCA TGATATCAAT GTTGGCACAA CACAGGCACA  
 TACCTAGTAG TACGAGCAGT ACTATAGTTA CAACCGTGTT GTGTCCGTGT  
  
 33301 CGTGCATACA CTTCCTCAGG ATTACAAGCT CCTCCCGCGT TAGAACCAT  
 GCACGTATGT GAAGGGAGTCC TAATGTTCGA GGAGGGCGCA ATCTTGGTAT  
  
 33351 TCCCAGGGAA CAACCCATTC CTGAATCAGC GTAAATCCCA CACTGCAGGG  
 AGGGTCCCTT GTTGGGTAAG GACTTAGTCG CATTTAGGGT GTGACGTCCC  
  
 33401 AAGACCTCGC ACGTAACTCA CGTTGTGCAT TGTCAAAGTG TTACATTGG  
 TTCTGGAGCG TGCATTGAGT GCAACACGTA ACAGTTTCAC AATGTAAGCC  
  
 33451 GCAGCAGCGG ATGATCCTCC AGTATGGTAG CGCGGGTTTC TGTCTAAAA  
 CGTCGTCGCC TACTAGGAGG TCATACCATC GCGCCCAAAG ACAGAGTTT  
  
 33501 GGAGGTAGAC GATCCCTACT GTACGGAGTG CGCCGAGACA ACCGAGATCG  
 CCTCCATCTG CTAGGGATGA CATGCCTCAC GCGGCTCTGT TGGCTCTAGC  
  
 33551 TGTTGGTCGT AGTGTATGC CAAATGGAAC GCCGGACGTA GTCATATTTC  
 ACAACCAGCA TCACAGTACG GTTTACCTTG CGGCCTGCAT CAGTATAAAG

FIG. 10A-42

33601 CTGAAGCAAA ACCAGGTGCG GGC GTGACAA ACAGATCTGC GTCTCCGGTC  
 GACTTCGTT TGGTCCACGC CCGCACTGTT TGTCTAGACG CAGAGGCCAG  
  
 33651 TCGCCGCTTA GATCGCTCTG TGTAGTAGTT GTAGTATATC CACTCTCTCA  
 AGCGGCGAAT CTAGCGAGAC ACATCATCAA CATCATATAG GTGAGAGAGT  
  
 33701 AAGCATCCAG GCGCCCCCTG GCTTCGGGTT CTATGTAAAC TCCTTCATGC  
 TTCGTAGGTC CGCGGGGGAC CGAAGCCAA GATAACATTG AGGAAGTACG  
  
 33751 GCCGCTGCCCG TGATAAACATC CACCACCGCA GAATAAGCCA CACCCAGCCA  
 CGGCGACGGG ACTATTGTAG GTGGTGGCGT CTTATTGGT GTGGGTCGGT  
  
 33801 ACCTACACAT TCGTTCTGCG AGTCACACAC GGGAGGAGCG GGAAGAGCTG  
 TGGATGTGTA AGCAAGACGC TCAGTGTGTG CCCTCCTCGC CCTTCTCGAC  
  
 33851 GAAGAACCAT GTTTTTTT TTATTCCAAA AGATTATCCA AAACCTCAAA  
 CTTCTGGTA CAAAAAAA AATAAGGTT TCTAATAGGT TTTGGAGTTT  
  
 33901 ATGAAGATCT ATTAAGTGAA CGCGCTCCCC TCCGGTGGCG TGGTCAAAC  
 TACTTCTAGA TAATTCACTT GCGCGAGGGG AGGCCACCGC ACCAGTTGA  
  
 33951 CTACAGCCAA AGAACAGATA ATGGCATTG TAAGATGTTG CACAATGGCT  
 GATGTCGGTT TCTTGTCTAT TACCGTAAAC ATTCTACAAAC GTGTTACCGA  
  
 34001 TCCAAAAGGC AACCGGCCCT CACGTCCAAG TGGACGTAAA GGCTAAACCC  
 AGGTTTCCG TTTGCCGGGA GTGCAGGTTT ACCTGCATTT CCGATTTGGG  
  
 34051 TTCAGGGTGA ATCTCCTCTA TAAACATTCC AGCACCTTCA ACCATGCCA  
 AAGTCCCCT TAGAGGGAGAT ATTTGTAAGG TCGTGGAAAGT TGGTACGGGT  
  
 34101 AATAATTCTC ATCTCGCCAC CTTCTCAATA TATCTCTAAG CAAATCCGA  
 TTATTAAGAG TAGAGCGGTG GAAGAGTTAT ATAGAGATTC GTTTAGGGCT  
  
 34151 ATATTAAGTC CGGCCATTGT AAAAATCTGC TCCAGAGCGC CCTCCACCTT  
 TATAATTCAAG GCGGGTAACA TTTTAGACG AGGTCTCGCG GGAGGTGGAA  
  
 34201 CAGCCTCAAG CAGCGAATCA TGATTGAAA AATTCAAGGTT CCTCACAGAC  
 GTCGGAGTTT GTCGCTTAGT ACTAACGTTT TTAAGTCCAA GGAGTGTCTG  
  
 34251 CTGTATAAGA TTCAAAAGCG GAACATTAAC AAAAATACCG CGATCCCGTA  
 GACATATTCT AAGTTTCGC CTTGTAATTG TTTTATGGC GCTAGGGCAT  
  
 34301 GGTCCCTTCG CAGGGCCAGC TGAACATAAT CGTGCAGGTC TGCACGGACC  
 CCAGGGAAAGC GTCCCGGTG ACTTGTATTA GCACGTCCAG ACGTGCCTGG  
  
 34351 AGCGCGGCCA CTTCCCCGCC AGGAACCAG ACAAAAGAAC CCACACTGAT  
 TCGCGCCGGT GAAGGGCGG TCCTTGGTAC TGTTTCTTG GGTGTGACTA

FIG. 10A-43

34401 TATGACACGC ATACTCGGAG CTATGCTAAC CAGCGTAGCC CCGATGTAAG  
 ATACTGTGCG TATGAGCCTC GATACGATTG GTCGCATCGG GGCTACATTC  
  
 34451 CTTGTTGCAT GGGCGGCAT ATAAAATGCA AGGTGCTGCT CAAAAAAATCA  
 GAACAAACGTA CCCGCCGCTA TATTTTACGT TCCACGACGA GTTTTTAGT  
  
 34501 GGCAAAGCCT CGCGCAAAAA AGAAAGCACA TCGTAGTCAT GCTCATGCAG  
 CCGTTTCGGA GCGCGTTTT TCTTTCGTGT AGCATCAGTA CGAGTACGTC  
  
 34551 ATAAAGGCAG GTAAGCTCCG GAACCACAC AGAAAAAGAC ACCATTTTC  
 TATTTCCGTC CATTGAGGC CTTGGTGGTG TCTTTTCTG TGGTAAAAAG  
  
 34601 TCTCAAACAT GTCTGCGGGT TTCTGCATAA ACACAAAATA AAATAACAAA  
 AGAGTTTGT A CAGACGCCA AAGACGTATT TGTGTTTAT TTTATTGTTT  
  
 34651 AAAACATTAA AACATTAGAA GCCTGTCTTA CAACAGGAAA AACAAACCTT  
 TTTTGTAAAT TTGTAATCTT CGGACAGAAT GTTGTCTTT TTGTTGGAA  
  
 34701 ATAAGCATAA GACGGACTAC GGCCATGCCG GCGTGACCGT AAAAAAACTG  
 TATTGTTATT CTGCCTGATG CCGGTACGGC CGCACTGGCA TTTTTTGAC  
  
 34751 GTCACCGTGA TTAAAAAGCA CCACCGACAG CTCCTCGGTC ATGTCCGGAG  
 CAGTGGCACT AATTTTCGT GGTGGCTGTC GAGGAGCCAG TACAGGCCTC  
  
 34801 TCATAATGTA AGACTCGGTA AACACATCAG GTTGATTTCAC ATCGGTCA  
 AGTATTACAT TCTGAGCCAT TTGTGTAGTC CAACTAAGTG TAGCCAGTCA  
  
 34851 GCTAAAAAGC GACCGAAATA GCCCGGGGGA ATACATACCC GCAGGCGTAG  
 CGATTTTTCG CTGGCTTTAT CGGGCCCCCT TATGTATGGG CGTCCGCATC  
  
 34901 AGACAACATT ACAGCCCCCA TAGGAGGTAT AACAAAATTA ATAGGAGAGA  
 TCTGTTGTAA TGTCGGGGGT ATCCTCCATA TTGTTTTAAT TATCCTCTCT  
  
 34951 AAAACACATA AACACCTGAA AAACCCCTCCT GCCTAGGCAA AATAGCACCC  
 TTTTGTGTAT TTGTGGACTT TTTGGGAGGA CGGATCCGTT TTATCGTGGG  
  
 35001 TCCCCTCTCCA GAACAACATA CAGCGCTTCC ACAGCGGCAG CCATAACAGT  
 AGGGCGAGGT CTTGTTGTAT GTCGCGAAGG TGTCGCCGTC GGTATTGTCA  
  
 35051 CAGCCTTACC AGTAAAAAAAG AAAACCTATT AAAAAAAACAC CACTCGACAC  
 GTCGGAATGG TCATTTTTC TTTGGATAA TTTTTTGTG GTGAGCTGTG  
  
 35101 GGCACCAGCT CAATCAGTCA CAGTGTAAAA AAGGGCCAAG TGCAGAGCGA  
 CCGTGGTCGA GTTAGTCAGT GTCACATTTC TTCCCGGTTT ACGTCTCGCT  
  
 35151 GTATATATAG GACTAAAAAA TGACGTAACG GTTAAAGTCC ACAAAAAACA  
 CATATATATC CTGATTTTT ACTGCATTGC CAATTCAGG TGTTTTTGT

35201 CCCAGAAAAC CGCACCGCAA CCTACGCCA GAAACGAAAG CCAAAAAACC  
 GGGTCTTTG GCGTGCCTT GGATGCGGGT CTTGCTTC GGTCCCCGG  
  
 35251 CACAACTTCC TCAAATCGTC ACTTCCGTTT TCCCACGTTA CGTCACTTCC  
 GTGTTGAAGG AGTTTAGCAG TGAAGGCAAAGGGTGCAAT GCAGTGAAGG  
  
 35301 CATTAAAGA AAACTACAAT TCCCAACACA TACAAGTTAC TCCGCCCTAA  
 GTAAAATTCT TTTGATGTTA AGGGTTGTGT ATGTTCAATG AGGCAGGGATT  
  
 35351 AACCTACGTC ACCCGCCCCG TTCCCACGCC CCGCGCCACG TCACAAACTC  
 TTGGATGCAG TGGGCGGGGC AAGGGTGCAG GCGCGGGTGC AGTGTGGAG  
  
 35401 CACCCCTCA TTATCATATT GGCTTCAATC CAAAATAAGG TATATTATTG  
 GTGGGGGAGT AATAGTATAA CCGAAGTTAG GTTTTATTCC ATATAATAAC

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35451 ATGATGTTAA TTAAGAATTG GGATCTGCGA CGCGAGGCTG GATGGCCTTC
 TACTACAATT AATTCTTAAG CCTAGACGCT GCGCTCCGAC CTACCGGAAG

 35501 CCCATTATGA TTCTTCTCGC TTCCGGCGGC ATCGGGATGC CCGCGTTGCA
 GGGTAATACT AAGAAGAGCG AAGGCCGCCG TAGCCCTACG GCGCAACGT

 35551 GGCCATGCTG TCCAGGCAGG TAGATGACGA CCATCAGGGA CAGCTTCAAG
 CCGGTACGAC AGGTCCGTCC ATCTACTGCT GGTAGTCCCT GTCGAAGTTC

 35601 GCCAGCAAAA GGCCAGGAAC CGTAAAAAGG CCGCGTTGCT GGCGTTTTTC
 CGGTCGTTT CCGGTCCCTTG GCATTTTCC GGCGAACGA CCGCAAAAG

 35651 CATAGGCTCC GCCCCCCCTGA CGAGCATCAC AAAATCGAC GCTCAAGTCA
 GTATCCGAGG CGGGGGGACT GCTCGTAGTG TTTTAGCTG CGAGTTCACT

 35701 GAGGTGGCGA AACCCGACAG GACTATAAAG ATACCAGGCG TTTCCCCCTG
 CTCCACCGCT TTGGGCTGTC CTGATATTTC TATGGTCCGC AAAGGGGGAC

 35751 GAAGCTCCCT CGTGCCTCT CCTGTTCCGA CCCTGCCGCT TACCGGATAC
 CTTCGAGGGA GCACGCGAGA GGACAAGGCT GGGACGGCGA ATGGCCTATG

 35801 CTGTCCGCCT TTCTCCCTTC GGGAAAGCGTG GCGCTTCTC ATAGCTCACG
 GACAGGCGGA AAGAGGGAAG CCCTCGCAC CGCGAAAGAG TATCGAGTGC

 35851 CTGTAGGTAT CTCAGTTCGG TGTAGGTCGT TCGCTCCAAG CTGGGCTGTG
 GACATCCATA GAGTCAAGCC ACATCCAGCA AGCGAGGTTG GACCCGACAC

 35901 TGCACGAACC CCCC GTTCAG CCCGACCGCT GCGCCTTATC CGGTAACAT
 ACGTGCTTGG GGGCAAGTC GGGCTGGCGA CGCGGAATAG GCCATTGATA

FIG. 10A-45

35951 CGTCTTGAGT CCAACCCGGT AAGACACGAC TTATGCCAC TGGCAGCAGC
 GCAGAACTCA GGTTGGGCCA TTCTGTGCTG AATAGCGGTG ACCGTCGTCG

 36001 CACTGGTAAC AGGATTAGCA GAGCGAGGTA TGTAGGCGGT GCTACAGAGT
 GTGACCATTG TCCTAACCGT CTCGCTCCAT ACATCCGCCA CGATGTCTCA

 36051 TCTTGAAGTG GTGGCCTAAC TACGGCTACA CTAGAAGGAC AGTATTTGGT
 AGAAACTTCAC CACCGGATTG ATGCCGATGT GATCTCCTG TCATAAACCA

 36101 ATCTGCGCTC TGCTGAAGCC AGTTACCTTC GGAAAAAGAG TTGGTAGCTC
 TAGACCGAG ACGACTTCGG TCAATGGAAG CCTTTTCTC AACCATCGAG

 36151 TTGATCCGGC AAACAAACCA CCGCTGGTAG CGGTGGTTTT TTTGTTGCA
 AACTAGGCCG TTTGTTGGT GGCGACCATC GCCACCAAAA AAACAAACGT

 36201 AGCAGCAGAT TACGCGCAGA AAAAAAGGAT CTCAAGAAGA TCCTTGATC
 TCGTCGTCTA ATGCGCGTCT TTTTTCTA GAGTTCTTCT AGGAAACTAG

 36251 TTTTCTACGG GGTCTGACGC TCAGTGGAAC GAAAACTCAC GTTAAGGGAT
 AAAAGATGCC CCAGACTGCG AGTCACCTG CTTTGAGTG CAATTCCCTA

 36301 TTTGGTCATG AGATTATCAA AAAGGATCTT CACCTAGATC CTTTTAAATC
 AAACCAAGTAC TCTAATAGTT TTTCTAGAA GTGGATCTAG GAAAATTAG

 36351 AATCTAAAGT ATATATGAGT AAACTTGGTC TGACAGTTAC CAATGCTAA
 TTAGATTTCA TATATACTCA TTTGAACCAAG ACTGTCAATG GTTACGAATT

 36401 TCAGTGAGGC ACCTATCTCA GCGATCTGTC TATTCGTTC ATCCATAGTT
 AGTCACTCCG TGGATAGAGT CGCTAGACAG ATAAAGCAAG TAGGTATCAA

 36451 GCCTGACTCC CCGTCGTGTA GATAACTACG ATACGGGAGG GCTTACCATC
 CGGACTGAGG GGCAGCACAT CTATTGATGC TATGCCCTCC CGAATGGTAG

 36501 TGGCCCCAGT GCTGCAATGA TACCGCGAGA CCCACGCTCA CCGGCTCCAG
 ACCGGGGTCA CGACGTTACT ATGGCGCTCT GGGTGCAGT GGCGGAGGTC

 36551 ATTTATCAGC AATAAACCAAG CCAGCCGGAA GGGCCGAGCG CAGAAGTGGT
 TAAATAGTCG TTATTTGGTC GGTCGGCCTT CCCGGCTCGC GTCTTCACCA

 36601 CCTGCAACTT TATCCGCCTC CATCCAGTCT ATTAATTGTT GCCGGGAAGC
 GGACGTTGAA ATAGGCCGAG GTAGGTCAGA TAATTAACAA CGGCCCTTCG

 36651 TAGAGTAAGT AGTTGCCAG TTAATAGTTT GCGCAACGTT GTGCCATTG
 ATCTCATTCA TCAAGCGGTC AATTATCAA CGCGTTGCAA CAACGGTAAC

 36701 CTACAGGCAT CGTGGGTGTC CGCTCGTCGT TTGGTATGGC TTCATTCAAGC
 GATGTCCGTA GCACCAACAGT GCGAGCAGCA AACCATACCG AAGTAAGTCG

FIG. 10A-46

36751 TCCGGTTCCC AACGATCAAG GCGAGTTACA TGATCCCCA TGTTGTGCAA
 AGGCCAAGGG TTGCTAGTTC CGCTCAATGT ACTAGGGGGT ACAACACGTT

 36801 AAAAGCGGTT AGCTCCTTCG GTCCTCCGAT CGTTGTCAGA AGTAAGTTGG
 TTTTCGCCAA TCGAGGAAGC CAGGAGGCTA GCAACAGTCT TCATTCAACC

 36851 CCGCAGTGTT ATCACTCATG GTTATGGCAG CACTGCATAA TTCTCTTACT
 GGCGTCACAA TAGTGAGTAC CAATACCGTC GTGACGTATT AAGAGAATGA

 36901 GTCATGCCAT CCGTAAGATG CTTTTCTGTG ACTGGTGAGT ACTCAACCAA
 CAGTACGGTA GGCATTCTAC GAAAAGACAC TGACCACTCA TGAGTTGGTT

 36951 GTCATTCTGA GAATAGTGTG TGCGGCGACC GAGTTGCTCT TGCCCGGCCT
 CAGTAAGACT CTTATCACAT ACGCCGCTGG CTCAACGAGA ACGGGCCGCA

 37001 CAACACGGGA TAATACCGCG CCACATAGCA GAACTTAAA AGTGCTCATC
 GTTGTGCCCT ATTATGGCGC GGTGTATCGT CTTGAAATTT TCACGAGTAG

 37051 ATTGGAAAAAC GTTCTCGGG GCGAAAACTC TCAAGGATCT TACCGCTGTT
 TAACCTTTG CAAGAACGCCC CGCTTTGAG AGTTCCCTAGA ATGGCGACAA

 37101 GAGATCCAGT TCGATGTAAC CCACTCGTGC ACCCAACTGA TCTTCAGCAT
 CTCTAGGTCA AGCTACATTG GGTGAGCACG TGGGTTGACT AGAAGTCGTA

 37151 CTTTACTTT CACCAGCGTT TCTGGGTGAG CAAAAACAGG AAGGAAAAT
 GAAAATGAAA GTGGTCGCAA AGACCCACTC GTTTTGTC TTCCGTTTA

 37201 GCCGCAAAAA AGGGAATAAG GGCGACACGG AAATGTTGAA TACTCATACT
 CGGCGTTTT TCCCTTATTG CCGCTGTGCC TTTACAACCTT ATGAGTATGA

 37251 CTTCCTTTTT CAATATTATT GAAGCATTG TCAGGGTTAT TGTCTCATGA
 GAAGGAAAAAA GTTATAATAA CTTCGTAAAT AGTCCCAATA ACAGAGTACT

 37301 GCGGATACAT ATTTGAATGT ATTTAGAAAA ATAAACAAAT AGGGGTTCCG
 CGCCTATGTA TAAACCTTACA TAAATCTTT TATTTGTTA TCCCCAAGGC

 37351 CGCACATTTC CCCGAAAAGT GCCACCTGAC GTCTAAGAAA CCATTATTAT
 GCGTGTAAAG GGGCTTTCA CGGTGGACTG CAGATTCTT GGTAATAATA

 37401 CATGACATTA ACCTATAAAA ATAGGCGTAT CACGAGGCC CTTCGTCTTC
 GTACTGTAAT TGGATATTG TATCCGCATA GTGCTCCGGG AAAGCAGAAG

 37451 AAGAATTGGA TCCGAATTCT TAAT
 TTCTTAACCT AGGCTTAAGA ATTA

FIG. 10A-47

1 catcatcaat aataaacctt atagatggaa tggtgccaat atgtaaatga ggtgattta
 61 aaaagtgtgg gccgtgttgt gattggctgt ggggttaacg gttaaaagg gcggcgcggc
 121 cgtggaaaaa tgacgtttt tgggggtgga gttttttgc aagttgtcgc gggaaatgtt
 181 acgcataaaa aggcttctt tctcacggaa ctacttagtt ttcccacggt atttaacagg
 241 aaatgaggtt gtttgaccg gatgcaagtg aaaattgctg atttcgcgc gaaaactgaa
 301 tgaggaagtg ttttctgaa taatgtggta tttatggcag ggtggagttat ttgttcaggg
 361 ccaggtagac tttgaccat tacgtggagg tttcgattac cgtgtttttt acctgaattt
 421 ccgcgtaccg tgcgttgc ttctgtttt acgttagtgt cagctgatcg ctagggatt
 481 tataacctcag gtttgcgtc aagaggccac tcttgagtgc cagcgagaag agtttctcc
 541 tctgcgcgg cagtttaata ataaaaaaaaat gagagattt cgatttctgc ctcagggaaat
 601 aatctctgct gagactggaa atgaaatatt ggagctgtg gtgcacgccc tbatgggaga
 661 cgatccggag ccacctgtgc agcttttga gcctcctacg ctcaggaac tbatggatt
 721 agaggttagag ggtatcgagg attctaata ggaagctgtg aatggctttt ttaccgattc
 781 tatgccttta gctgctaata aaggatttga attagatccg ccttggaca cttcaatac
 841 tccagggggtg attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt
 901 ggactgtgat ttgcactgtc atgaaagacgg gtttccctcg agtgatgagg aggaccatga
 961 aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgtgggtt
 1021 tcagttggat tgccccgggc ttctggacat ggctgtaaat cttgtgaatt tcacaggaaa
 1081 aatactggag taaaggaact gttatgttcg cttttttat atgaaaaccc actgccactt
 1141 tatttacagt aaagtgtttttaatggaaat tttaaggaa tatgtgtttt ttcacatgtt
 1201 tatttacagt aaagtgtttttaatggaaat tttaaggaa tatgtgtttt ttcacatgtt
 1261 catctcttga ttctactacc tcacccctgt atattcaagc acctgttcc gtggacgtgc
 1321 gcaagcccat tcctgtgaag cttaaagcctg ggaaacgtcc acgactggag aaacttgagg
 1381 acttggtaca ggggtgggac ggacctttgg acttgagttac acggaaacgt ccaagacaat
 1441 aagtgttcca tatccgtgtt tacttaaggat gacgtcaata tttgtgttag agtgcataatgt
 1501 aataaaaaata tttttactgt tcactgttta ttattgtctt ttgggggggg actcaggtat
 1561 ataagtagaa gcagacctgt gtggtagt cataggagct ggctttcattc catggaggat
 1621 tggccattt tggaaagaccc taggaagact aggcaactgt tagagagcgc ttcggacgg
 1681 gtctccgggtt tttggagatt ctggttcgct agtgaattttag cttagggtagt ttttaggata
 1741 aaacaggact ataaacaaga atttggaaat ttgttggtagt atggccagg actttttgaa
 1801 gctctaatt tggccatca ggttcaactt aaagaaaaat ttttatcagt ttttagacttt
 1861 tcaaccccaag gttagaactgc tgctgtgtg gctttctta ctttatattt agataatgg
 1921 atcccgacca ctcatttcag caggggatac gttttggatt tcatagccac agcattgtgg
 1981 agaacatggaa aggttcgcaaa gatgaggaca atcttaggtt actggccagt gcagcccttg
 2041 ggtgttagcgg gaatccctgag gcatccaccc gtcatggccag cgggttctgg ggaggaaacag
 2101 caaggagaca acccgagac cggcctggac cctccatgg agggaggcggg gtagctgact
 2161 tgtctcttga actgcaacccg gtgttactg gatctacgtc cactggacgg gatagggcgg
 2221 ttaaggggaa gagggttcc acgtgttactg atgctagatc tgagttggct ttaagttaa
 2281 tgagtcgcag acgttctgaa accattttgtt ggcatgaggt tcagaaagag ggaagggatg
 2341 aagttctgtt attgcaggag aaatatttca cttttttttt gttttttttt gttttttttt
 2401 cagaggatga ttgggggtt gccattaaaaa attatccaa gatagctttt aggctgtata
 2461 aacagtataa gatcagtataa cggattaata tccggaaatgc ttgttacata tctggaaatg
 2521 gggctgaggt ggtatagat actcaagaca agacagttat tagatgtc atgatggata
 2581 tttttttttt caacaatacc tttttttttt tttttttttt tttttttttt tttttttttt
 2641 atggttataa tggaaatagt gttttttttt tttttttttt tttttttttt tttttttttt
 2701 tttttttttt caacaatacc tttttttttt tttttttttt tttttttttt tttttttttt
 2761 gttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
 2821 aatgcataattt cttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
 2881 actgcgttcc tacagataact tttttttttt tttttttttt tttttttttt tttttttttt
 2941 ataacatgtt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
 3001 ggcattgtaa tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
 3061 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
 3121 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
 3181 ccagaatgtt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
 3241 atgatgatac tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
 3301 agccgggtgtg tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
 3361 ctggagcaga tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
 3421 ttgggggtggg tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
 3481 tgacatgtt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
 3541 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
 3601 cttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
 3661 cttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt

FIG. 11A-1

3721 ctatggaagc atcgtggcta attccacttc ctctataaac cttctacac tgactcagga
 3781 caagttactt gtccttttg cccagctgga ggcttgcacc caacgtctgg gtgaacttcc
 3841 tcagcagggtg gccgagttgc gagtacaaac tgagtctgct gtcggcacgg caaagtctaa
 3901 ataaaaaaaaa ttccagaatc aatgaataaa taaacgagct tttgttgcattaaatcaa
 3961 gtgttttat ttcattttc gcgcacggta tgccctggac caccgatctc gatcatttag
 4021 aactcgggtgg atttttcca gaatcctata gaggtggat tgaatgttta gatacatggg
 4081 cattaggccc tctttgggtt ggagatagct ccattgaagg gattcatgct cggggtagt
 4141 gttgtaaatc acccagtcat aacaaggtcg cagtgcatttgg tttgtgcacaa tatcttttag
 4201 aagtaggctg attgccacag ataagccctt ggttaggtg tttacaacc ggttagctg
 4261 ggaggggtgc attcgagggtg aaattatgtg cattttggat tggatttta agttggcaat
 4321 attgcgcaca agatcccgtc ttgggttcat gttatgaagg actaccaaga cggtgtatcc
 4381 ggtacatttta gggaaatttt cgtcagctt ggatggaaaa gctggaaaaa atttggagac
 4441 acccttgtgt cctccgagat tttccatgca ctcatccatg ataatacgaa tggggccgtg
 4501 ggcagcggcg cgggcaaaaca cgttccgtgg gtctgacaca tcatagttat gttcctgagt
 4561 taaatcatca taagccattt taatgaattt gggcggagc gtaccagatt gggatgtatgaa
 4621 tgttccttcg gccccccggag catagttccc ctcacagatt tgcatattccc aagctttcag
 4681 ttctgagggtt ggaatcatgtt ccacctgggg ggctatgaag aacaccgtt cggggccggg
 4741 ggtgattagt tggatgtata gcaaggtttctt gaccaatttga gatttgcac atccgggtggg
 4801 gccataaaata attccgtat cagggttcag gttgttagttt agggAACGGC aactggccgtc
 4861 ttctcgaagc aaggggggca ctcgttcat cattttccctt acatgcataat tttccgcac
 4921 caaatccatt aggaggcgtt ctcgttcttag ttagatggaaat tttgttagtgg agggaaaatg
 4981 tttcagcgtt ttagaccgtt cagccatgggg cattttggaa agagtttgc gcaaaagttc
 5041 tagtctgttc cacagttcag tgatgtgttca tttggcatct cgtatccagca gacccctcg
 5101 tttcgccgtt ttggacggct ctcgttgcattt ggtatgagac gatgggcgtc cagcgtcgcc
 5161 aggggtcggt cttcccgagg ttcgtgtt cttcccggtt cttcccggtt cttcccggtt
 5221 ggggtgcgc ctgttgggc gcttgcagg gttgcgttca gactcatttctt gctggggag
 5281 aacttctgtc gtttggcgcc ctgtatgtcg gccaaggtagc agtttaccat gagttcgtag
 5341 ttgagcgcctt cggctgcgtt gccttggcg cggagcttac ctttggaaat tttcttgcatt
 5401 accgggcagt ataggcattt cagcgcataac agcttggcgcaaggaaaat ggattctggg
 5461 gaggatgtcat ccgcgcgcga ggaggcgcaaa acagtttacatccaccat ccaggtaaaa
 5521 tccgggttcat tgggttcaaa aacaagttt cgcgcattttttt ttttgcatttgc ttttgcatt
 5581 ttgggtctcca taagttcggt tcctcggttgc gttacaaaaca ggctgtccgt atctccgtat
 5641 actgatttttta caggcctctt ctccgtgttgc gttccgttgcgtt cttccgttgcgtt
 5701 gaccactctg atacaaggc ggcgtccagg gccaggccaa aggaggctat gtgggggggg
 5761 tagcgatctgt tgcataaccggggggccacc ttttccaaag tatgcaccaaa catgtcacc
 5821 tcttcacat ccaggatgtt gatgggttttgc taggttatttgc ttttgcatttgc ttttgcatt
 5881 gctggggggggg tataaaaagggg ggcgggttttgc ttttgcatttgc ttttgcatttgc
 5941 tccaggaacg tcagcttt
 6001 ctcagggttgtt cagtttctaa gaacgaggag gatttgcatttgc ttttgcatttgc ttttgcatt
 6061 ctttcatgatc gttttcgccat catttgcatttgc gtttttttttttttttttttttttttttttt
 6121 gtggcaaatatc atccatatacg ggcgttggat gtttttttttttttttttttttttttttttt
 6181 ttcttttcct tgcgttgcgtt cttttggcg gtttttttttttttttttttttttttttttttt
 6241 aggcaacttcc attcggggaa gatagttttttttttttttttttttttttttttttttttttttt
 6301 ctcgattat gcaaggtaat taaatccaca ctttttttttttttttttttttttttttttttttt
 6361 ttggtccaac agaggcttacc tccttttcataa gtttttttttttttttttttttttttttttt
 6421 agttcatcggtt gagggtctgc atccatggta ttttttttttttttttttttttttttttttt
 6481 tagctgtatgg gagggtgggtc atctaaggcc ttttttttttttttttttttttttttttttt
 6541 tcataatgggtt taaggggactt gccccaggcc ttttttttttttttttttttttttttttt
 6601 ccacagatgtt catagacgtt gatgggtatcc ttttttttttttttttttttttttttttt
 6661 cggcccccctt tgcataacttgc tcgcacatag ttttttttttttttttttttttttttttt
 6721 cccggaccca agttgggtcg atttgggttttttttttttttttttttttttttttttttttt
 6781 gctgtggaaat tggaaagat gtt
 6841 cttacagatgtt ctctgacaaa gttggcataa ttttttttttttttttttttttttttttt
 6901 gtgacaaatgtt cgtcttagggc gcaatgttca ttttttttttttttttttttttttttt
 6961 tgggttt
 7021 tcttcgtatgc gaaacccgtt ctt
 7081 actgccttgtt aagggcagca gccccttctt ttttttttttttttttttttttttttttt
 7141 cgtacgtatgc gtt
 7201 ttggatgttca tgcgttccat ggttttttttttttttttttttttttttttttttttttt
 7261 taggggggtt tggggcaaaatc gaaatgttcaaa ttttttttttttttttttttttttttt
 7321 ataaaaatttgc gtt
 7381 gcaatgttca ttt

FIG. 11A-2

7441 aaacgcggcg tgcctctgac gtgaggtagc ttactgagct catcaaagggt taggtctgtg
 7501 gggtcagata aggcgttagt ttcgagagcc cattcgtgca ggtgaggatt tgcatgtagg
 7561 aatgatgacc aaagatctac cgccagtgc gttttaact ggtcccgata ctgacgaaaa
 7621 tgccggccaa ttgcatttt ttctggagt acacagtaga agttctggg gtcttggc
 7681 catcgatccc acttgagttt aatggctaga tcgtggcca ttttgacgag acgctttct
 7741 cctgagagtt tcatgaccag catgaaaggaa actagttgtt tgccaaaggaa tcccatccag
 7801 gtgttaagttt ccacatcgta ggtcaggaag achtcttctg tgcgaggatg agagccgatc
 7861 gggaaaact ggatttcctg ccaccagttt gaggattggc ttttgatgt atggaagtag
 7921 aagttctgc ggcgcgccc gcattcgtgt ttgtgttgc acagacggcc gcagtagtc
 7981 cagcgttgca cgggttgc gtcgtgaatg agctgtacct ggctccctt gacgagaaat
 8041 ttcagtggga agccgaggcc tggcgattgt atctcgtgct cttctatatt cgctgtatcg
 8101 gcctgttcat ttctgttgc gatgggtggc atgctgacga gccccccg gaggcaagtc
 8161 cagacctcg gcgccggaggg gcggagctga aggacgagag cgcgcaggct ggagctgtcc
 8221 agagtctga gacgctgcgg actcaggtt ataggttaggg acagaagatt aacttgcatt
 8281 atctttcca gggcggtgcgg gaggttcaga tggtaacttga tttccacagg ttcgttgc
 8341 gagacgtcaa tggcttgcag gttccgtgt ctttggcg ccactaccgt acctttgtt
 8401 tttctttga tcgggtggg ctctcttgc ttttgcattgc tcagaaggg tgacggggac
 8461 ggcgcgcggg cggcagcggt tggtccggac cggggggcat ggctggtagt ggcacgtcgg
 8521 cggcgcgcac gggcagggtc tggtattgcg ctctgagaag acttgcgtgc gccaccacgc
 8581 gtcgatttgc gtcttgc tgcgtctc ggttgaagg taccggcccc gtgagcttga
 8641 acctgaaaaga gagttcaaca gaatcaattt cggtatcggtt aacggcagct tgcatttgc
 8701 tttcttgc tgcaccagag ttgtcctggg aggcatctc cggcatgaac tgctcgattt
 8761 cttccctcctg aagatctccg cgaccgcgc tttcgcacggt gcccgcgagg tcattggaa
 8821 tacggcccat gagttgggag aatgcattca tgccgcctc gttccagacg cggctgtaaa
 8881 ccacggcccc ctcggagttt cttgcgcgc tcaccaccc agcgaggtt agctccacgt
 8941 gtctggtaa gaccgcata gttgcataaggc gctgaaaag gtatggtagt gtggggcaaa
 9001 tgtgttcggc gacgaagaaa tacatgatcc atcgcttcag cggcatttc ctaacatcg
 9061 ccagagcttc caagcgctcc atggcctcgta agaagtccac ggcaaaattt aaaaactgg
 9121 agtttcgcgc ggacacggc aattcctctt cggaaagacg gatgagttcg gctatggtag
 9181 cccgtacttc gcttcgaaag gctccgggat tctttcttc ctcttctatc tcttcttcca
 9241 ctaacatctc ttcttcgtct tcaggcgggg gcccggggg caccgcggcga cgtcgacggc
 9301 gcacggccaa acggtcgatg aatcgatcaaa tgaccttc gcccggccgg cgcatggg
 9361 cagtgcacggc gcccgggtc tcgcgcggc gcaagataaa aacaccgcgc cgcatctcc
 9421 taaagtgggt actggggaggt tctccgtttt ggaggggaggg ggcgcgtgatt atacattt
 9481 ttaatggcc cgtaggact ggcgcagag atctgatcg tgcagatcc acggatctg
 9541 aaaaccttc gacgaaaggc tctaaccatg cacaatcaca agttaggctg agtacggct
 9601 cttgtggcg ggggtggta tggtcggt ctgggtttc tggttcttc tcatctcg
 9661 aaggtgagac gatgctgtg tgatgaaat taaagtggc agttctaaga cggcggatgg
 9721 tggcgaggag caccaggctt ttgggtccgg cttgctggat acgcaggcga ttggccattc
 9781 cccaagcatt atcctgacat ctagcaagat cttttagta gtcattgcattg agccgttcta
 9841 cgggcaacttc ttccctcaccc gttctgcatt gcatatcgatg gatgtccaaat cggcgcattt
 9901 gttgtaccag tgccaaatgc gctacgactc tttccggag gatggcttgc tttacttggg
 9961 taagggtggc ttgaaatgc tcaaaatcca caaagggtg gtaagccctt gtattaatgg
 10021 tgtaagcaca gttggccatg actgaccatg taactgtctg tgaccaggc cgacgcacgt
 10081 cggtgtattt aaggcgcgaa taggcgcggg tgcataatg gtcatttc gtaatcgatc
 10141 ccagatactg gtaccctata agaaaatgcg gcggtgttgc gcccgcgtt
 10201 ctgttagctgg agcgccaggc gcgaggctt ccaacataag gcccgtatag ccgtatgt
 10261 acctggacat ccagggtattt cctgcggcgg tagtagaaac tcgcgtacgc
 10321 gttccaaat gttgcgtatc ggcattgaaat agttcattgt aggcacgggt tgaccaggta
 10381 ggcgcgcgc gtcattgtatc ctctatagac acggagaaaa taaaaggcgtt cagcactcg
 10441 actccgtatc ctggaggaaac gtaacccggg tgggtcgcc tgatccccgg ttcgagactt
 10501 gtactcgacg cggccggagc cgccgcataac gtgttattgg cactccgtc tcgaccaggc
 10561 ctacaaaaaa ccaggatcg gaatcgatc gtttgcgttgg ttcccaatg gcaggaaat
 10621 gagtcctatt tttttttt ttttgcgtt cagatgcatttccgtc acagatgc
 10681 ccccaacaac agccccccctc gcagcagcagc cagcagcagc aaccacaaaa ggctccct
 10741 gcaactactg caactgcccgc cgtgagcggt gcccggacagc cccgcctatga tctggactt
 10801 gaagaggcg aaggactggc acgtcttagt gcccgcctgc ccgagcggc tccgcgagtt
 10861 caactgaaaa aagattctcg cgaggcgtat gttcccaac agaacattt tagagacaga
 10921 agcggcgagg agccggagga gatgcgatc tcccgcttta acgcgggtcg tgagctgcgt
 10981 cacggttgg accgaagacg agtggatgc gacgaggatt tgcaggatgt tgaagtgc
 11041 gggatcgtc ctgcgcaggc acacgtggct gcaaccacc ttgtatcgcc ttacgagc
 11101 acagtaaaagg aagagcgtaa ctccaaaag tcttttaata atcatgtgc aaccctgatt

FIG. 11A-3

11161 gcccgcgaag aagtacctt tggtttgatg cattttggg atttgatgga agctatcatt
 11221 cagaacccta ctagcaaacc tctgaccgcc cagctgttc tgggttgtca acacacgaga
 11281 gacaatgagg ctttcagaga ggcgctgctg aacatcaccc aacccgggg gagatgggg
 11341 tatgatctta tcaacattct acagagtatc atagtgcagg agcggagcct gggcctggcc
 11401 gagaaggtag ctgcacatcaa ttactcggtt tttagcttgg gaaaatatta cgctcgcaaa
 11461 atctacaaga ctccatacgt tcccatagac aaggaggtga agatagatgg gttctacatg
 11521 cgcatgacgc tcaaggctt gaccctgagc gatgatctt gggtgtatcg caatgacaga
 11581 atgcacatcgcg cggttagcgc cagcaggagg cgcgagttaa gcgacaggga actgatgcac
 11641 agttgc当地 gagctctgac tggagcttgg accgagggtg agaattactt cgacatggga
 11701 gctgacttgc agtggcagcc tagtgcagg gctctgagc cccgcacggc aggatgttag
 11761 cttccatata tagaagaggc ggatgaaggc gaggaggaag agggcgagta cttgaaagac
 11821 tgatggcaca acccggttt tttgttagat ggaacagcaa gcacccgatc ccccaatgcg
 11881 ggcggcgctg cagagccagc cgtccggcat taactcctcg gacgatttggg cccaggccat
 11941 gcaacgtatc atggcgttga cgactcgcaaa ccccgaagcc tttagacagc aacccaggc
 12001 caaccgtcta tcggccatca tggaaagctgt agtgccttcc cgatctaattt ccactcatga
 12061 gaaggcctg gccatcgta acgcgttggg ggagaacaaa gctattcgatc cagatgaggc
 12121 cggactggta tacaacgctc tcttagaacg cgtggctcgc tacaacagta gcaatgtgca
 12181 aaccaatttgg gaccgtatga taacagatgt acgcgaagcc gtgtctcagc gcgaaagg
 12241 ccagcgttatg gccaacctgg gttcgcttgg ggcgttaatg gttttcttga gtactcagcc
 12301 tgctaatttgc cccgttggc aacaggattt tactaactt ttaagtgtt tgagactgat
 12361 ggtatcagaa gtacctcaga gcgaagtgta tcagtccgtt cctgattact tctttcagac
 12421 tagcagacag ggcttgccaga cggtaatctt gagccaagct tttaaaaacc ttaaagg
 12481 gtggggagtg catgccccgg taggagaaag agcaaccgtg tctagcttgg taactccgaa
 12541 ctccccctg ttattactgt tggtagcttcc tttcacccgac agcggtagca tcgaccgtaa
 12601 ttccttatttgg gtttacctac taaaacctgtt tgcgcgatc ataggccaaa gtcagg
 12661 cgagcagacc tatcaagaaaa ttacccaagt cagtcgcgtt tgggacagg aagacactgg
 12721 cagttggaa gccactctga acttcttgcg taccatcggtt ctcaaaaga tccctccatca
 12781 atatgctttt actgcggagg aggagaggat ctttagatat gtgcagcaga gcgtgggatt
 12841 gtttctgatg caagaggggg caactccgac tgcagcactg gacatgacag cgccaaat
 12901 ggagcccagc atgtatgcca gtaaccgacc tttcataac aaactgctgg actactgca
 12961 cagagctgcc gctatgaact ctgattattt caccaatgccc atcttaaacc cgcactggc
 13021 gcccccacct ggtttcttaca cgggcgaaata tgacatgccc gaccctaattt acggattt
 13081 gtgggacgac gtggacagcg atgttttttcc acctcttctt gatcatcgca cgtggaaaa
 13141 ggaaggcggtt gataagaatgc atttcttgcg atcgcgttcc ggggtcatgg gtgcacc
 13201 ggctgagccc gagtctgcaat gtcctttcc tagtctaccc ttttcttac acagtgtac
 13261 tagcagcgaat gtt
 13321 cgatttcttgc ctcagacccgg caagagaaaaaa aattttttttttttttttttttttttt
 13381 ggtggataaa atgagtagat ggaagactt tgctcaggat cacagagac agcctgggat
 13441 catggggact acaagtagag cgagccgttag acgcgcgc catgacagac agagggtct
 13501 tgtgtgggac gatgaggatt cggccgtatg tagcagcgtg ttggacttgg gtggggaggg
 13561 aaggggcaac ccgttgcgc atttgcgc tgcgttgggtt ggtatgttgg gaaaaaaaa
 13621 aaaaaagaaaa aactcaccaaa ggcacatggcg acgagcgtac gtcgttctt ctttattatc
 13681 tgtgtcttagt ataatgaggc gagtcgtgtt aggcggagcg gtgggtgtatc cggagg
 13741 tcctccttcg tacgagacgc tgatgcagca gcaacccatcc cctggcaccc acggagg
 13801 actggaggct ccctttgtgc ctccgcgata taccaccagg ttgtatctgg tggacaacaa
 13861 tcgttactcg gaactggcac ctcagatcgaa gaatgaccac agcaacttct tgaccac
 13921 gtcggcgac attgttcttc tgaactatca gacccggcacc cagaccatta actttat
 13981 ggtgcagaac aatgacttta cccctacggg catcatgcat actaacatgc caaacgt
 14041 acgatcgccg tggggcggtc agctaaagac gctgtgtatg gtgtccagaa aaccc
 14101 cgagttatgt tttagtaaca agtcaaaaggc caagcaggat attttggaaat atgag
 14161 cgggtctgca gtt
 14221 cgagtttact ttgcacccaa gcaacttttc agttactatg actattgtt tgatg
 14281 tgccatata gataatgtt gtaaagtggg tagacagaat ggagtgttttgg aaagt
 14341 tgggttaag ttcgacacca ggaatttccaa gctggatgg gatcccgaaa ccaagg
 14401 catgccttggc gtgtatacgt atgaaggccctt ccacccatccatccatccatccatcc
 14461 cggagttggat ttaccggaga gtcgtttggag caacccatccatccatccatccatcc
 14521 atttcaagag gtttttaaga ttt
 14581 cttggatgtt gatgcctatg agaacagttaa gaaagaacaa aaagccaaaa taga
 14641 tacagctgct gcagaaggcta aggcaacat agttgcacgc gactctacaa gggtt
 14701 cgctggagag gtcagaggag acaattttgc gcaacaccc gttccgactg cagaat
 14761 attggccatgtt gtttgcgtt gtttgcgtt gtttgcgtt gtttgcgtt gtttgcgtt
 14821 tagtaagaat agaagctata atgtgttggaa agacaaaatc aacacagccat atcg

FIG. 11A-4

14881 ttatcttcg tacaattatg gcgatcccga aaaaggagtg cttcccttgcg cattgtc
14941 cacctcgat gtacacctcg ggcagagca gtttactgg tcgcttccag acatgtatgaa
15001 ggatccgtc acttcccgct ccactagaca agtcgtaac taccctgtgg tgggtgcaga
15061 gcttatgccc gtcttctcaa agagttcta caacgaacaa gctgtgtact cccagcagct
15121 cccgcaactcc acctcgctt cgacgtctt caaccgctt cctgagaacc agattttat
15181 cccgtccggc gcccacca ttaccaccgt cagtaaaac gttctgtct tcacagatca
15241 cgggaccctg ccgttgcgca gcaatccg gggagtccaa cgttgaccg ttactgacgc
15301 cagacgcgc acctgtccct acgttacaa ggcactggc atagtcgcac cgcgcgtcc
15361 ttcaagccgc actttctaaa aaaaaatgt ccattctt ctcgcccagt aataacacccg
15421 gttgggtct gcgcgtcca agcaagatgt acggaggcgc acgcaaacgt tctacccaa
15481 atcccggtcg tgttcgcgga catttcgcg ctccatgggg tgccctcaag gcccgcactc
15541 gcggtcaac caccgtcgat gatgtaatcg atcagggtgg tgccgacgccc
15601 ctcctactgc gcctacatct actgtggatg cagttattga cagttagt gctgacgctc
15661 gcaactatgc tcgacgttaag agccggcgaa ggccgttgc cagacgcac ctagctacca
15721 ctggcatcg agccgcaaga gctctgtctac gaagagctag acgcgtgggg cgaagaggca
15781 tgcttagggc ggcagacgt gcaatccg ggcggcgc cggcagggtcc cgcaggcaag
15841 cagccgtgt cgacggcgc actatccg acatggccca atcgcaaga ggcataatgt
15901 actgggtcg tgacgctgcc accggtaac gtgttccct ggcacccgt cccctcgc
15961 cttagaagat actgagcagt ctccgatgtt gtgtccccc ggcgaggatg tccaagcgc
16021 aatacaagga agaaatgctg caggttatcg cacctgaagt ctacggccaa cctgtgaagg
16081 atgaaaaaaa accccgc当地 atcaagcggg taaaaagga caaaaagaa gggaaatgt
16141 gcgatgtgg gctggcgag tttgtgcgc agtttcccc acggcgacgc gtcaatggc
16201 gtggcgca agttcgacat gtgttggagac ctggacttc ggtggcttt acacccggcg
16261 agcgttcaag cgctacttt aagcgttctt atgatgagggt gtacggggat gatgatattc
16321 ttgagcaggc ggctgaccga ttaggcgagt ttgcttatgg caagcgtatg agaataactt
16381 ccaaggatga gacagtgtca ataccctgg atcatggaaa tcccacccct agtcttaac
16441 cggtcactt gcagcaagt ttaccctgaa ctcccgaaac aggtttaaa cgcgaagggt
16501 aagatttcta tcccaactatg caactgtatgg taccggaaac ccagaagttt gaggacg
16561 tggagaaatg aaaagtggat ccagatattc aacctgagggt taaagtgaga cccattaagc
16621 aggttagcgcc tggctgggg gtacaaactg tagacattaa gattccact gaaagtatgg
16681 aagtgc当地 tgaacccgc当地 aagcctactg ccaccccttca tgaagtgc当地 acggatccat
16741 ggatcccat gcctattaca actgaccccg cccgtccac tcgaagatcc cgcacgaaat
16801 acggtccagg aagtctgtt atgcccattt atgttgtaca cccatctatt attcctactc
16861 ctggattcccg aggactcgca tactatcgca gccgaaacac tacccccc当地 cgtgc当地
16921 agacacccgtc aaatcgactg cgtgc当地 gacgcacaag caaaccgact cccggc当地
16981 tggcgccgca agtgtaccgc aatggtagt cggaaacctt gacactgccc cgtgc当地
17041 accatccggat tattatcaatg taatcaatgt tgccgttgc当地 tccttgc当地 tatggcc
17101 acttgc当地 ttccgttcc catcaatgtt tacccggggaa gaaactcgcc cctgtaga
17161 gggatgttgg gacgc当地 ggc当地 gctac aggc当地 ggc当地 gtgctatccg
17221 cgggggttgg tttaccaggc ctaatttcca attatcgctt ctgcaattgg cgc当地
17281 ggc当地 gctt ccgtggccggt tcaggctcg caacgacatt gacattggaa aaaaac
17341 taaaataaaaaaa aaaaatacaat ggactctgac actccctggc ctgtgactat
17401 agatggaaaga catcaatttt tcatccctgg ctccgc当地 cggcac
17461 gcacctggag cgacatcgcc acgagccaa tgaacggggg cgc当地
17521 tctggagccgg gctaaaaat tttggctcaa ccataaaaaac atacgggaaac
17581 acagcactac aggacaggcg cttagaaaata aactt当地 aac
17641 tagtcgatgg gatacgcttcc ggc当地
17701 aaaaaaaaaaa aacagtcgt ttggaccggc
17761 aggaagaaat tcctccgcca
17821 agacgcttgg gacgc当地
17881 tgccc当地 accac tagaccgata
17941 atcgaccctg cacccctggat
18001 agccctgtcg tgccccggaa
18061 gtccaaatgc gcactggcaa
18121 taaaacccggc tcgtctt
18181 atatgtgtca ttacacgc当地
18241 cgctgaggta cttcaat
18301 atcgccggac aggatgttcc
18361 acagacacccct acttcaat
18421 gatgtgacca ccgaccgt
18481 gacaatacat acttctt
18541 gatatggccca gcacgttcc

FIG. 11A-5

18601 ccctattctg gtacggctta caactctctg gtcctaaag ggcgtccaaa tgcatctcaa
 18661 tggattgcaa aaggcgtaacc aactgcagca gccgcaggca atggtaaga agaacatgaa
 18721 acagaggaga aaactgctac ttacacttt gccaatgctc ctgtaaaagc cgaggctcaa
 18781 attacaaaag agggcttacc aataaggttt gagatttcag ctgaaaacga atctaaaccc
 18841 atctatgcag ataaacttta tcagccagaa cctcaagtgg gagatgaaac ttggactgac
 18901 ctagacggaa aaaccgaaga gtatggaggc agggctctaa agcctactac taacatgaaa
 18961 ccctgttacg ggtcctatgc gaagcctact aattaaaag gttgtcaggc aaaaccgaaa
 19021 aactcggaac cggtcagtgaa aaaaattgaa tatgatattt acatgaaatt ttttgataac
 19081 tcacgc当地 gaacaaactt cagtcctaaa attgtcatgt atgcagaaaa tgtaggaaa
 19141 gaaacgccag acactcatgt agtgtacaaa cctggAACAG aagacacaag ttccgaagct
 19201 aatttggac aacagtctat gccaacaga cccaactaca ttggcttcag agataacttt
 19261 attggactca tgtactataa cagactgtt aacatgggg tgctggctgg tcaagcgtct
 19321 cagttaaatg cagtggttga cttgcaggac agaaaacacag aactttctta ccaactctt
 19381 cttgactctc tggcgacag aaccagatac ttagcatgt ggaatcaggc tggacagtt
 19441 tatgtcctg atgtacgtt tattgaaaat catgggttgg aagatgaaact tcccaactat
 19501 tgtttccac tggacggcat aggtgttcca acaaccagt acaaataat agttccaaat
 19561 ggagaagata ataataattt gaaagaaccc taagtaatg gaacaagtga gatcgacag
 19621 ggttaatttgc ttgcctatgg aattaaccc caagccatc tatggcaag tttcccttat
 19681 tccaatgttgc ctgttatct cccagactcg tacaataca cccctccaa tgcactt
 19741 ccagaaaaca aaaacaccta cgactacatg aacgggggg tggtgcggcc atctcttaga
 19801 gacacctatg tgaacattgg tgccagggtt tctctggat ccatggacaa tgcacccca
 19861 ttcaaccacc accgtAACGC tggcttgcgt taccgatcta tgcttctggg taacggacgt
 19921 tatgtcctt tccacataca agtgcctaa aattcttcg ctgttaaaaa cctgctgctt
 19981 ctcccaggct cctacactta tgagtggaaat ttaggaagg atgtgaacat gtttctacag
 20041 agttccctcg gtaacgaccc gcggttagat ggcgc当地 tcaatgttccac gaggcatcaac
 20101 ctctatgcta ctttttccc catggctcac aacaccgctt ccacccttga agccatgctg
 20161 cggaaatgaca ccaatgatca gtcatcaac gactacccat ctgcagctaa catgctctac
 20221 cccattcctg ccaatgcaac caatattccc atttccattt cttctcgcaa ctggcggt
 20281 ttcagaggct ggtcatttac cagactgaaa accaaagaaa ctccctctt ggggtctgg
 20341 tttgacccct actttgttca ttctggtttctt atcccttacc tggatggat cttctacct
 20401 aaccacactt ttaagaaggt ttcacatcatg tttgactctt cagtggactg gcctggaaat
 20461 gacaggttac tatctcctaa cgaatttggaa ataaagcgca ctgtggatgg cgaaggctac
 20521 aacgttagccc aatgcaacat gaccaaaagac tggttcttgg tacagatgct cgccaaactac
 20581 aacatcggtt atcaggggctt ctacatttcca gaaggatata aagatcgcat gtattctt
 20641 ttcagaaaact tccagcccat gaggaggcag gtgggtatg aggtcaatta caaagactt
 20701 aaggccgtcg ccataccctt ccaacacaac aactctggct ttgtgggtt catggctccg
 20761 accatcgccc aaggtaaccat tataccctt aactatccc atttccat tggaaacaact
 20821 gccgtaaata gtgttacgca gaaaaagttt ttgtgtgaca gaaccatgtg ggc当地acc
 20881 ttctcgagca acttcatgtc tatgggggccc cttacagact tggacagaaa tatgtcttat
 20941 gccaactcag ctcatgctt ggacatgacc tttgaggtgg atccccatggg tgagcccacc
 21001 ctgctttatc ttcttttgcg agtttgcac gtggtcagag tgc当地cagcc acaccggc
 21061 atcatcgagg cagtctaccc gctacaccg ttctcgccg gtaacgctac cacgtaaagaa
 21121 gcttcttgct tcttgcaat agcagctgca accatggctt gggatccca aaacggctcc
 21181 agcgagcaag agctcagagc cattgtccaa gacctgggtt gggaccctt tttttgg
 21241 acctacgata agcgcttccc ggggttcatg gccccggata agctcgctg tgccattt
 21301 aatacgccg gacgtgagac ggggggagag cactgggttgg ctggccgtt gacccacgt
 21361 tctaaccaccc gctaccttt tgatcctttt ggattctcg atgatcgctt caaacaagg
 21421 taccagttt aatatgaggg tctcctgcgc cgc当地cgctc ttgttaccaa ggaccgct
 21481 attacgctgg aaaaatctac ccagaccgtg cagggcccccc gttctggccg ctggactt
 21541 ttctgtcga ttgttcccttca cgccttgcg cactggctg accgtcccat ggacggaaac
 21601 cccaccatg aattgtcaac tggagtgc当地 aacaacatgc ttcatctcc taaagtccag
 21661 cccaccctgt gtgacaatca aaaacactc taccatccc ttaataccctt ttcccttat
 21721 ttctgtctc atcgtacaca catcgaaagg gccactcgat tgc当地gtt gatgttcaa
 21781 taatgactca tggtaacaaat gtgttcaata aacatcaatt tatttttta catgtatcaa
 21841 ggctctggat tacttattt tttacaagtc gaatgggtt tgacgagaat cagaatgacc
 21901 cgcaggcagt gatacgttgc ggaactgata cttgggttgc cacttgaatt cggaaatcac
 21961 caacttgggaa accggtatata cggcaggat gtcactccac agcttctgg tcagctgaa
 22021 agctccaaggc aggtcaggag ccggaaatctt gaaatcacaat ttaggaccag tgctctg
 22081 gcgagagttt cggtacaccg gattgc当地 ctgaaacacc atcagcgacg gatgtct
 22141 gcttggccagc acggtgggat ctgcaatcat gcccacatcc agatcttcag cattggcaat
 22201 gctgaacggg gtc当地cttgc aggtctgcct acccatggcg ggc当地ccat taggctt
 22261 gttcaatcg cagtcagggg ggtcaggat catcttggcc tggatcctgtc tgattctt

FIG. 11A-6

22321 atacacggct ctcatgaaag catcatattt gttgaaagcc tgctggcctt tactaccctc
 22381 ggtataaaaac atccccagg acctgctcgaa aactgttta gctgcacagc cgccatcatt
 22441 cacacagcag cgggcgtcat tgttggctat ttgcaccaca ctctgcccc agcggtttg
 22501 ggtgatttt gttcgctcgatttctcata taaggctcgat tgccgttct cgctggccac
 22561 atccatctcg ataatctgtt ccttctgaat cataatattt ccattgcaggc acttcagctt
 22621 gcccataa tcattgcagc catgaggcca caacgcacag cctgtacatt cccattatg
 22681 gtggcgatc tgagaaaaaa aatgtatcat tccctgcaga aatcttccca tcattgtct
 22741 cagtgtctt tgacttagta aagtttaactg gatgcctcggtg tgccttcgtt tacgtactg
 22801 gtgacagatg cgcttgtatt gttcggttgc ctcaggcatt agttaaaac aggttctaag
 22861 ttcgttatcc agcctgtact tctccatcg cagacacatc acttccatgc ctttctccca
 22921 agcagacacc aggggcaagc taatcgattt cttAACAGT caggcaggcag ctcctttagc
 22981 cagagggtca tcttttagcga tcttctcaat gcttctttt ccattccttc caacgatgcg
 23041 cacggcggg tagctgaaac ccactgctac aagttgcgc tcttctctt cttctcgct
 23101 gtcttgactg atgtcttgcg tggggatatg tttgtcttc ctggccttctt tttgggggg
 23161 tatcgagga ggaggactgt cgctccgttccggagacagg gaggattgtg acgttcgct
 23221 caccattacc aactgactgtt cggtagaaga acctgacccca acacggcgac aggttttt
 23281 cttcgggggc agaggtggag gcgattgcga agggctcggtg tccgacactgg aaggcggatg
 23341 actggcagaa cccctccgc gttcggggtt gtcgtcccttgc ttaactgatt
 23401 tccttcggc ctggccattt gtttctcttgc ggcagagaaa caacagacat gggaaatcag
 23461 ccattgtgtt caacatcgcc acgagtgcga tcacatctcg tcttcagcga cgaggaaaag
 23521 gagcagagct taagcattcc accgcccagt cctgccacca cctctaccctt agaagataag
 23581 gaggtcgacg catctcatga catgcagaat aaaaaagcga aagagtctga gacagacatc
 23641 gagcaagacc cgggctatgt gacaccgggtt aacacgagg aagagttgaa acgcttctt
 23701 gagagagagg atgaaaactg cccaaaacag cgagcagata actatcacca agatgctgga
 23761 aatagggatc agaacaccga ctacccata gggcttgcg gggaaagacgc gctccttaaa
 23821 catctagcaa gacagtcgtt catagtcaag gatgcattat tggacagaac tgaagtgc
 23881 atcagtgtgg aagagctcgtt ctgcgccttcc gactttaacc ttttttacc tcgtactccc
 23941 cccaaacgtc agccaaacgg cacccgtcgaccaatccctt gcttaaactt ttatccagct
 24001 tttgctgtgc cagaagtact ggctacctat cacatcttt taaaaatca aaaaattcca
 24061 gtctctgcc ggcctaattcg caccgcgc gatgccttac tcaatctggg acctggttca
 24121 cgcttacctg atatagcttc tttggaaagag gttccaaaga tcttcgaggg tctggcaat
 24181 aatgagactc gggccgcaaa tgctctgc gggagaaaa attggcatgaa tgagcatcac
 24241 akggtctgg tggatttggg aggccataat gccagactcg cagactca ggcgaagcg
 24301 gaggtcacac acttcgcata tccgcgttc aacccgtcccccccttccaaatgtcat
 24361 atggaccagt tactcattaa ggcgcgaat ggcgcgttccatccatccatccatccatcc
 24421 gcctgtatg aggtaaaacc agtggtcgtt gatgacccatccatccatccatccatcc
 24481 gactctcccc gggatttggg agagcgtcgcc aagcttatga tgccgtggg gctggatt
 24541 gtagaacttag agtgcgtccg acgtttctt accgatttcgaaaccccttccatccatcc
 24601 gagaatctgc actacactt tagacacggc tttgtgcgc accgatgcaaa gatatcta
 24661 gtggactca ccaacctggt ttcctacatg ggtattctgc atgagaatcg cctaggacaa
 24721 akggtctgc acagcacccctt taagggggaa gcccgcgtg attacatccg cgattgtgc
 24781 tatcttacc tggccacac gtggcaaaacc ggcattgggt tatggcagca atgttagaa
 24841 gaacagaact tgaaaagagct tgacaagctt ttacagaaat ctcttaagggt tctgtgg
 24901 gggttcgacg agcgcaccgt cgctccgac ctggcagacc tcatcttccc agagcgtctc
 24961 agggttaactt tggcaaaacgg attgcctgac ttatgagcc agagcatgct taacaattt
 25021 cgctttca tcctggaaacg ctccggatc ctggcccca cctgctgcgc actgcccctcc
 25081 gactttgtgc ctctcaccta ccgcgagtgc ccccccggc tatggagtca ctgctacctg
 25141 ttccgtctgg ccaactatctt ctcttaccac tcggatgtga tcgaggatgt gaggcgg
 25201 ggcttgcgtgg agtgcactg ccgcgtcaat ctgtgcacgc cccaccggc cctagcttgc
 25261 aaccccaactt tgatgagcga aaccagata atggcacct ttggattgca agggcccc
 25321 agccaaaggcg atgggtcttc tcctggggca agttttaaaac tgacccggg actgtgg
 25381 tccgcctact tggcaagtt tgctccggaa gattaccacc cctatggaaat caagttctat
 25441 gaggaccaat cacagcctcc aaaggccgaa ctttcgctt gctgtcatcac ccagggg
 25501 attctggccc aatttgcacgc catccaaaaaa tccgcacccatccatccatccatccatcc
 25561 aaggggtctt accttgcaccc ccagaccggc gaggaaactca acacaagggtt
 25621 gtcccaacga cgagaaaaaca agaagttgaa ggtgcaccccg ccgcggcccg aagatat
 25681 ggaagattgg gacagtcagg cagaggaggc ggaggaggac agtctggagg acagtctg
 25741 ggaagacagt ttggaggagg aaaacgggaa ggcagaggag gtggaaagaag taacc
 25801 caaacagttt tcctcggtt cggagacaag caacagcgctt accatctccg ctccgag
 25861 aggaacccgg cggcgatcca gcagtagatg ggacgagacc ggacgcttcc cgaac
 25921 cagcgcttcc aagaccggta agaaggatcg gcagggatac aagtccctggc ggggg
 25981 gaatgccatc atctcctgtt tgcatgatgg cggggcaac atatccctca cgcggcg

FIG. 11A-7

26041 cttgttattc caccatgggg tgaactttcc ggcgaatgtt ttgcattact accgtcacct
26101 ccacagcccc tactatagcc agcaaatccc gacagtctcg acagataaaag acagcggcgg
26161 cgacctccaa cagaaaacca gcagcggcag ttagaaaata cacaacaagt gcagcaacag
26221 gaggattaaa gattacagcc aacgagccag cgcaaaccgg agagttaaaa aatcgatct
26281 ttccaaccct gtatgccatc ttccagcaga gtcggggtca agagcaggaa ctgaaaataa
26341 aaaaccgatc tctgcgttcg ctcaccagaa gttgttgta tcacaagagc gaagatcaac
26401 ttcagcgcac tctcgaggac gccgaggctc tcttcaacaa gtactgcgcg ctgactctt
26461 aagagtaggc agcgaccggc cttattcaaa aaaggcgaaa attacatcat cctcgacatg
26521 agtaaaagaaa ttcccacgcc ttacatgtgg agttatcaac cccaaatggg attggcagca
26581 ggcgcctccc aggactactc caccgcgtg aattggctca ggcgcgggccc ttctatgatt
26641 tctcgagttt atgatatacg cgccattaccga aaccaaatc ttttggaaaca gtcagcttt
26701 accaccacgc cccgccaaca ccttaatccc agaaattggc cccggccctt agtgtaccag
26761 gaaagtccccg ctccccaccac tgtattactt ctcgagacg cccaggccga agtccaaatg
26821 actaatgcag gtgcgcagtt agctggcggc tccaccctat gtcgtcacag gcctcggcat
26881 aataaaaaaac gcctgtatgtat cagaggccga ggtatccagc tcaacgcacg gtcggtagc
26941 tctccgctt gtcgtacgacc agacggaaatc tttcagattt ccggctgcgg gagatcttcc
27001 ttccaccctt gtcaggctgt tctgactttt gaaagtctgt ctcgcaacc cgcgtcgggc
27061 ggaatcgaaa cccgttcaatt tgttagggag tttactccct ctgttactt caacccttc
27121 tccggatctc ctgggcataa cccggacggat ttcataccga acttcgacgc gattagcag
27181 tcagttggacg gtcgtacgatc atgttgggtt acgcggctga gctatctcg ctgcgacatc
27241 tagaccactg cccggcttt cgctgtttt cccggaaact tatttagttt atctacttcg
27301 aactccccaa ggatcaccctt caaggtccgg cccacggagt gccggattact atcgaaggca
27361 aaatagactc tcgcctgcaaa cgaatttttctt cccagggcc cgtgctgatc gagcggagacc
27421 agggaaacac cacggtttcc atctactgca tttgtaatca ccccgaggattt catgaaaagcc
27481 ttgcgttct tatgtgtact gagtttataa aaaactgaat taagactctc ctacggactg
27541 ccgcttcttcc aacccggatt ttacaaccag aagaacaaaaa cttttctgt cgtccaggac
27601 tctgttaact tcacccctt tactcacaaa ctagaagctc aacgactaca ccgctttcc
27661 agaagcattt tccctactaa tactacttttcc aaaaccggag gttagctcca cggctccct
27721 acagaaaacc cttgggttga agcgggcctt gtagtactag gaattcttgc ggggtggcctt
27781 gtgattattt tttgttacact atacacaccc tgccttactt tgcttgcctt actttcgatc ttggAACCGG
27841 tggttaaaaa aatggggccc atactagtct tgcttgcctt tgaccaga aactgcaca cttacttttgc
27901 gttctgccaa ttacgatcca tgcttagact ttatataactg cggatgggaa tgcaaggccg
27961 caccggacac aagccgcatac tggtggagttt acaataacctt atccaccaca tggggccag
28021 ttgaaattac acacaaaatc aaaaccccttga gaggtcttgc cgggtccatc cgcatttaga
28081 gagttcccgat ttggatcacat gtcgttgc gaaatgtgcg atctggccat gttcatgagc aaacagtatt
28141 acaacactt catttttttctt gaaatgtgcg taacgttcc tttttttttt tgcttgc
28201 ctctatggcc tccttagcaag gacaacatcg gtagtactttt gcatcacccctt gtttgc
28261 ttgccttct tactgttta ctgtgcgtat aaccccttcc ttggatccatc tttttttttt
28321 aaaaccccaa taacaaagaa aaaatgcctt cttttttttt aaccccttcc ttggatccatc
28381 cttacatctc tcatatttttgc cttttttttt aaccccttcc ttggatccatc
28441 atcccaactg gacataatta cactctata aaccccttcc ttggatccatc
28501 accaaactgg gaagcggttga ttacttttgc aaccccttcc ttggatccatc
28561 gtaacttgca acataaaaaa tcttacattt aaccccttcc ttggatccatc
28621 tattatggtt atgacagata cttttttttt aaccccttcc ttggatccatc
28681 ttgaaaacca cggaaatgccc aatatggca aaccccttcc ttggatccatc
28741 acttttacat cttccaccac aacccgcggaa aaccccttcc ttggatccatc
28801 gttcagcgg tggcagtgtt gatggcacta aaccccttcc ttggatccatc
28861 cgctacaaaaa agtttcatcc taaaaaaacca aaccccttcc ttggatccatc
28921 ctttttatac agccatgttt tccactaccat aaccccttcc ttggatccatc
28981 tgactctgc tcgctcacac cttttttttt aaccccttcc ttggatccatc
29041 ctcacgggtt gtcgttccatc tttttttttt aaccccttcc ttggatccatc
29101 gtgaccaacc tggtagatcc ttctgcacccg aaccccttcc ttggatccatc
29161 caaatgacaa aggcttccatc tttttttttt aaccccttcc ttggatccatc
29221 ttgttactgccc atcttaccat cccacccccc aaccccttcc ttggatccatc
29281 ctaacaatac aattttccatc cccacccccc aaccccttcc ttggatccatc
29341 ctacaacttc acataaaaaa aattttccatc cccacccccc aaccccttcc ttggatccatc
29401 ttggaaatatac tattttttttt aaccccttcc ttggatccatc
29461 aacataaaagg tgatccatc cttttttttt aaccccttcc ttggatccatc
29521 agtatggtga acaccaatca tggtagccatc aaccccttcc ttggatccatc
29581 tttaatgtt tgcgttccatc tcacagcgtt aaccccttcc ttggatccatc
29641 atttgcttcc tatgcactt tttttttttt aaccccttcc ttggatccatc
29701 cctgggttattt aattttttcc aacttctaga cttttttttt aaccccttcc ttggatccatc

FIG. 11A-8

29761 ccaccatccc gaataccgca accaaaatat cgccggcactt cttagactca tctaaaacca
 29821 tgcaggctat actaccaata ttttgcttc tattgcttcc ctacgctgtc tcaaccccag
 29881 ctgcctatag tactccacca gaacaccta gaaaatgcaa attccaacaa ccgtggcat
 29941 ttcttgcttg ctatcgagaa aaatcagaaa tccccccaaa ttaataatg attgctggaa
 30001 taattaatat aatctgttc accataattt cattttgat atacccccta tttgatttg
 30061 gctggaatgc tcccaatgca catgatcatc cacaagaccc agaggaacac attccccac
 30121 aaaacatgca acatccaata gcgctaatacg attacgaaag tgaaccacaa cccccactac
 30181 tccctgctat tagttacttc aacctaaccg gcggagatga ctgaaacact caccaccc
 30241 aattccgccc aggatctgtc cgatatggac ggccgcgtct cagaacaacg acttgc
 30301 ctacgcattcc gccagcagca ggaacgcgtg gccaaagagc tcagagatgt catccaaatt
 30361 caccaatgca aaaaaggcat attctgtttg taaaacaag ccaagatatac ctacgagatc
 30421 accgctactg accatcgct ctcttacgaa cttggccccc aacgacaaaaa atttac
 30481 atgggtggaa tcaaccccat agttatcacc caacaatgt gagataactaa gggttgcatt
 30541 cactgctcct gcgattccat cgagtgcacc tacaccctgc tgaagaccct atgcggccta
 30601 agagacctgc taccaatgaa taaaaaaaaa atgattaata aaaaatcact tacttgaat
 30661 cagcaataag gtctctgtt aaattttctc ccagcagcac ctcacttccc tcttccaaac
 30721 tctggatttc taaacccctg tcagcggcat actttcttca tactttaaag gggatgtcaa
 30781 attttagctc ctctcctgtt cccacaatct tcattgtt cttccctatg gaccaagaga
 30841 gtccggctca gtgactccctt caaccctgtc taccctatg aagatgaaaag caccc
 30901 cacccttta taaacccagg gtttattttcc ccaaattggc tCACACAAAG CCCAGACGG
 30961 gttcttactt taaaatgttt aacccacta acaaccacag gccgatctc acagctaaaa
 31021 gtgggggggg gacttacagt ggatgacact gatggtacct tacaagaaaa catacgtct
 31081 acagcaccca ttactaaaaa taatcactct ttagaactat ccattggaaa tggattagaa
 31141 actcaaaaaca ataaaactatg tgccaaatttggg taaaattttaa caacggtgac
 31201 atttgtataa aggatagtat taacacccctt tggactggaa taaaaccctcc acctaactgt
 31261 caaattgtgg aaaacactaa tacaatgtat ggcaaaactt ctttagtatt agtaaaaaat
 31321 ggagggcttg ttaatggcta cgtgtctcta gttggtgtat cagacactgt gaaccaa
 31381 ttcacacaaa agacagcaaa catccaattt agattatatt ttgacttccc tggaaatcta
 31441 ttaactgagg aatcagactt aaaaatttcca cttaaaaata aatcttctac agcgacc
 31501 gaaactgttag ccagcagcaaa agcctttatg ccaagtacta cagcttatcc cttca
 31561 actactaggg atagtgaaaaa ctacattcat ggaatatgtt actacatgac tagttat
 31621 agaagtctat ttccctgtt catttctata atgctaaaca gccgtatgtat ttcttccaa
 31681 gttgcctatg ccatacaatt tgaatggat ctaaatgcaaa gtgaatctcc agaaagca
 31741 atagctacgc tgaccacat ccccttttc tttcttaca ttacagaaga cgacaactaa
 31801 aaaaaagttt aagtgtttt attaaaatc aaaaaattcg aatgttatt ttgcctccac
 31861 cttccatattt gacagaatacc accaatctt cccacgcac agctttaaac atttgata
 31921 cattagagat agacattgtt ttagatttca cattccaaac agtttcagag cgagccaa
 31981 tggggctagt gataaaaaaa aatccatgc gatagtctt taaagcgctt tcacagtcc
 32041 actgctgcgg atgcactcc ggagtttggatc tCACGGTCACTTTCCAC
 32101 atcataatcc gaaaacggta tcggacgatt gtgtctcatc aaacccacaa gcagccgct
 32161 tctgcgtcgc tccgtgcgac tgctgtttt gggatcaggg tccacagttt cctgaagcat
 32221 gattttataa gcccttaaca tcaactttct ggtgcgtatc ggcgcagcaac gcattct
 32281 ttcaactaaa tctttgcagttt aggtacaaca cattattaca atattgttta ataaacc
 32341 attaaaagcg ctccagccaa aactcatatc tgatataatc gcccctgcattt gaccat
 32401 ccaaagttt atataaattt aatgacgttc cctcaaaaac acactaccca catacat
 32461 ctctttggc atgtgcataat taacaatctg tctgtaccat ggacaacgtt ggttac
 32521 gcaacccaat ataaccttcc ggaaccacac tgccaaacacc gctccccccag ccat
 32581 aagtgaaccc tgctgattac aatgacaatg aagaacccaa ttctctcgac cgt
 32641 ttgagaatga aaaatatcta tagttggcaca acatagacat aaatgcacatc
 32701 aatttttaac tcctcaggat ttgaaaaatc atcccaggaa ataggaagctt cttgc
 32761 agtaaaagctg gcagaacaaag gaagaccacg aacacaactt acatcatgc
 32821 atcacaatctt ggcacacacg ggtggcttc agtcatagaa gtcgggtt catttt
 32881 acaacgtggt aactgggtc ttgtttaagg gtgttgcgtt ggcgcatttgc
 32941 ggcacaccc ttgttgcgtt gtcataatgg agttgcattt tgacatc
 33001 cggccctggc agaacaacact ctcttgcctt ttctatctg ccgcttagcg
 33061 gatagttcaa gtacagccac actcttaagt tggtaaaaag aatgctggct
 33121 tcaaaaactcc atcgcatctt atgttctgtt gggatcattc
 33181 ccaaccaagg aatgcaactg gattgcgtt gggatcattc
 33241 gaaccatgtt aatttttattt ccaacacatc tgcgcgtact
 33301 atggcatctc tcgccccccat tggatgggtt aaaaagcaca
 33361 atttcaagg tgctcaacgg tggatggat tggatggat
 33421 aagaatacca aaagaaggag cattttctaa ctcctcaatc
 atcatattac attcctgcac

FIG. 11A-9

33481 cattcccaga taatttcag ctcccaagcc ttgaatttatt cgtgtcagtt cttgtggtaa
33541 atccaatcca cacattacaa acaggccccg gagggcgcccc tccaccacca ttcttaaaca
33601 caccctcata atgacaaaaat atcttgctcc tgtgtcacct gtacgcgaaatt gagaatggca
33661 acatcaattt acatgccctt ggctctaagt tcttcattaa gttcttagtt taaaaactct
33721 ctcatattat caccaaactg cttagccaga agccccccgg gaacaagagc aggggacgct
33781 acagtgcagt acaagcgcag acctcccaa ttggctccag caaaaacaag attgaaataa
33841 gcatatttggg aaccaccagt aatatcatcg aagttgtcgg aaatataatc aggccagagg
33901 tctttagaa attgaataaa agaaaaattt gccaaaaaaaaa cattcaaaaac ctctgggatg
33961 caaatgcaat aggttaccgc gctgcgctcc aacattgtta gtttgaatt agtctgaaaa
34021 aataaaaaaa aaacaagcgt catatcatag tagcctgacg aacagggtgga taaatcagtc
34081 ttccatcac aagacaagcc acagggtctc cagctcgacc ctcgtaaaaac ctgtcatcg
34141 gattaaacaa cagcaccgaa agttcctcgc ggtgaccaggc atgaataagt ctgtatgaaag
34201 catacaatcc agacatgtt gcatcagtta aggagaaaaa acagccaaaca tagcctttgg
34261 gtataattat gcttaatcgt aagtatagca aagccacccc tcgcggatac aaagtaaaaag
34321 gcacaggaga ataaaaaaaata taattatttc tctgctgctg tttaggcaac gtcgcaccccg
34381 gtccctctaa atacacatc aaaggcctcat cagccatggc ttaccagaga aagtacagcg
34441 ggcacacaaa ccacaaggctc taaagtcaact ctccaaacctc tccacaatataatcacaa
34501 gccctaaact gacgtaatgg gactaaagtg taaaaaatcc cgccaaaccc aacacacacc
34561 ccgaaactgc gtcaccaggg aaaagtacag ttccacttcc gcaatcccaa caagcgtcac
34621 ttccctttc tcacggtagc tcacatccca ttaacttaca acgtcatttt cccacggccg
34681 cgccggccct ttaaccgtt aaccggcag ccaatcacca cacggcccac actttttaaa
34741 atcacctcat ttacatatttgc accattcc atctataagg tatattatttgc atgatg

FIG. 11A-10

Vaccine T=0, 4 wks	Vaccine T=24 wks	Monkey ID	Pre		T=4 wks		T=8 wks		T=24 wks		T=28 wks		T=32 wks	
			Mock	Gag ^a	Mock	Gag	Mock	Gag	Mock	Gag	Mock	Gag	Mock	Gag
Ad34ΔE1gagΔE4Ad5Orf6, 10 ¹¹ vp	Ad35ΔE1gagΔE4Ad5Orf6, 10 ¹⁰ vp	00D016	4	6	1	84	5	334	5	99	0	306	3	244
Ad34ΔE1gagΔE4Ad5Orf6, 10 ¹¹ vp	Ad35ΔE1gagΔE4Ad5Orf6, 10 ¹⁰ vp	00D044	1	1	8	79	0	374	8	138	0	493	1	253
Ad34ΔE1gagΔE4Ad5Orf6, 10 ¹¹ vp	Ad35ΔE1gagΔE4Ad5Orf6, 10 ¹⁰ vp	00D064	4	6	1	125	8	655	6	145	0	351	1	236
Naïve		00D087	1	1	3	3	8	54	6	8	5	5	3	0

FIG. 12

Vaccine (T=0, 4 Wks)	Vaccine (T=24 Wk)	Monkey ID	IFN-γ ⁺ CD4 ⁺ CD3 ⁺ per 10 ⁶ Lymphocytes		IFN-γ ⁺ CD8 ⁺ CD3 ⁺ per 10 ⁶ Lymphocytes	
			Mock	Gag	Mock	Gag
Ad34ΔE1gagΔE4Ad5Orf6, 10 ^{^11} vp	Ad35ΔE1gagΔE4Ad5Orf6, 10 ^{^10} vp	00D016	62	433	176	1288
Ad34ΔE1gagΔE4Ad5Orf6, 10 ^{^11} vp	Ad35ΔE1gagΔE4Ad5Orf6, 10 ^{^10} vp	00D044	136	593	323	1871
Ad34ΔE1gagΔE4Ad5Orf6, 10 ^{^11} vp	Ad35ΔE1gagΔE4Ad5Orf6, 10 ^{^10} vp	00D064	188	785	292	992

FIG. 13